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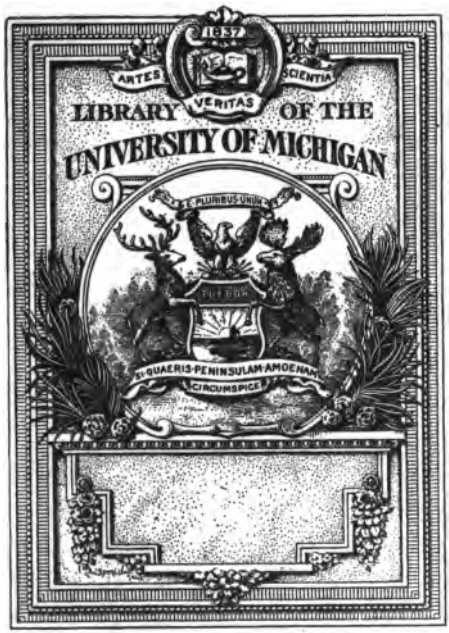
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FLOWER GARDENING

"This is the best of the many kinds of gardens—just a garden and yet one thoroughly thought out in its relation to the house"

FLOWER GARDENING

BY
H. S. ADAMS
Author of "Making a Rock Garden," "Lilies," etc.

NEW YORK
McBRIDE, NAST & COMPANY
1913

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Published, April, 1913

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FLOWER GARDENING

CHAPTER I

FLOWERS AND THE HOME

BACON, in the famous essay that is an eternal joy to the flower lover, maintains that a garden is "the Purest of Humane pleasures." Certainly all will agree that it is among the purest.

In the nature of things it can be such only by so close an association with the home as to be "part and parcel" of it, as they say in New England. And the more intimate this association the more nearly does the garden approximate the Baconian estimate that it is "the Greatest Refreshment to the Spirits of Man."

There must be gardenless homes in these days, more's the pity. But wherever the garden, meaning more particularly the garden of flowers, comes into human life the first thought of all should be its affinity with the home. Unfortunately, this is only too often the very last thought; worse yet, many go on to the end of their existence without realizing the supreme experience.

What is a flower garden? Doubtless some would say, if one may judge them by their works, that it is a highly decorative frame for the house,

or a showy adjunct thereto; or again that it is a colorful possession the joy of which would be materially lessened were the effect not boldly planned for the eyes of the passerby, or a mere place for the growing of the flowers that one must have.

Now the true garden of flowers is a great deal more. It may be—sometimes it must needs be—merely a clump of lilies by the doorstep, a rose on the porch or a row of chrysanthemums hugging the house. If this means the establishment of a real relationship between the inside of the portal and the outside, there is a garden, and one worthy to be numbered among "the Purest of Humane pleasures." Size matters not, nor design, nor the abundance of flowers.

So began the earliest American flower gardens —gardens that the Colonists made for themselves in New England, in New York and in Virginia. From the home outward they began, at first not straying from the walls of the house. Gradually, as forest and redskin receded, flowers ventured forth into the created yard—but never so far that the garden seemed other than the integral part of the home that it should be.

The old Colonial rule—call it instinct if you will—is the only one worth while. And so simple it is that even a child may read it as he runs. Let the flower garden expand from the heart of the home outward; then you may be sure that you have made a right start.

"The more intimate this association the more nearly does it approximate the Baconian estimate that it is the 'Greatest Refreshment to the spirits of Man'"

CHAPTER II

FLOWER GARDENS OF MANY KINDS

FROM the days of the ancients, there have been various kinds of gardens. And in this age of specialization there are more and more kinds as the years go by. Already the kinds are so many that life and purse would seldom be long enough to secure their possession, even were such a multiplicity of gardens to be desired.

The advantage of these numbers is that they offer infinite suggestion for the making of a garden along composite, as well as specialized, lines. A bit here and a bit there, molded into shape by personality, may be precisely the material needed to create a pleasance that asks to be called by no more definite name than the garden.

After all, taking the human race by and large, this is the best of the many kinds of gardens—just a garden and yet one thoroughly thought out in its relation to the house. A variation for every individual is possible, there being no limit to the changes to be rung. As for beauty, there is ample room for all that any one cares to put into it. Nor need such a garden be nondescript; if the

borrowing and adapting of ideas is judicious, the garden will have a personal character—in nine cases out of ten better than a slavish reproduction of one of the endless number of kinds. It is better in point of appropriateness and better in point of enjoyment.

To borrow and adapt judiciously is relatively easy if common sense be kept in the foreground. Art matters less than good taste and need not seriously disturb the amateur so far as strict adherence to set rules, and all that, is concerned. These rules are for the professional makers of gardens bearing high-sounding names.

The more a garden is so broken up that the eye cannot grasp all at once, the more kinds may be drawn upon. At the end of the main path there is, perhaps, a stone bench backed by small evergreens; this from an Italian garden. A curved bypath discloses a little Japanese scheme, a bank of thyme is from a Shakspere garden, while an herb garden suggested the walk lined with burnet.

This sort of garden-making is always worth doing and the beauty of it is that the working out of the idea may be of gradual growth. On the other hand, a named garden is not worth while at all unless it is substantially what it purports to be. That means careful study, to the end that there may be consistency of design and materials. On top of the study will come much labor and, more likely than not, much expense.

Of the four kinds of gardens that are classed by

national style rather than the plants grown, the Italian is the acme of formality; nothing is unordered. It is the Renaissance perfection of the ancient Roman idea of a garden that not only was symmetry itself but was a part of a larger scheme of symmetry as represented by the villa—using the word in its old sense of an estate rather than merely a house. The elaborate design bears a distinct relation to the house, yet is quite complete in itself. There are terraces—which may be of monumental proportions—if the opportunity presents itself—and much topiary work, ornamental stone and statuary. Pools and running water also figure prominently in it.

A garden sufficiently Italian to be so called is perfectly feasible on a small place, if it conforms to the architecture of the house and there is a sufficient slope to permit of three terraces. Modification may be quite extreme. Flower beds of set design and neatly edged, with gravel walks, are more important to the plan than lawn spaces. Trees should close it in on three sides, that isolation may bring out its individuality. Clipped hedges may be made to take the place of stone balustrades. The red cedar is a fair substitute for cypress, while very good reproductions of antique garden furnishings are comparatively inexpensive. With these two materials, in fact, a short path could be converted into what it would be permissible in the intimacy of home to name an Italian garden.

Few will care to carry consistency beyond this compromise; for the more one studies Italian gardens the more one inclines to the view that to the average American gardener some part is of greater value than the whole. Perhaps it is only a group of cypresses in the Villa Albani, Rome, that suggests how to plant some red cedars standing out against the sky. Or the plan of the Villa Lante, at Bagnaia, is just the thing from which to adapt a parterre design, or the view up the terraces to the palace at Villa d'Este, Tivoli, the solution of a sloping rear-yard problem, or the Hill Walk of the Boboli Gardens, Florence, the pattern of a smaller scheme with a modest gateway. None, in the making of gardens, need fear to look too high; perhaps the Hanging Gardens of Babylon, as pictorially imagined, may furnish the very key to the planting of a cottage yard that is so hilly as to require a series of retaining walls quite close together.

French gardens have formality, too, but there are long vistas—which the Italian style does not call for, though they are not necessarily lacking. For these vistas there are avenues, sometimes with clipped trees; and there are broader stretches of water and more spouting fountains than in the gardens of Italy.

A reduction of the garden at Fontainebleau to very moderate proportions would provide an excellent model for a French garden. Here the square pool has four wide approaches and the

surrounding flower beds are set in the turf. There is a good garden suggestion, too, in the "Isle of Love" at Chantilly; this for a short vista of flowers and water. Another, for box-lined parterres, will be found in the garden of the Grand Trianon, at Versailles, and still another, for a paved court, in the Orangery at the same place.

The English garden, when highly formal, is very apt to show traces of Italian or French influence. In its less grand estate it possesses a charm that neither of the others has—a certain atmosphere of the home. Beauty it has, often of an exquisitely reposeful sort that is lacking in Italy and France; but there is the feeling that the beauty is not so much for art as to live with and love by personal association. To bind it still more closely to the home, the bowling green, the tennis court or croquet ground may be made part of it, and it is a common practice to enclose it with a wall or clipped hedges to insure seclusion.

Where foreign copying is to be done, it is to English gardens that the American would better look in most cases; if he is able to appropriate their homely air, their restfulness and their seclusion he need not mind if his work is not scholastic.

Atmosphere rather than design being the distinguishing feature, the best way to make an English garden is to enclose—preferably with a wall of stone or brick—a plot laid out in a formal pattern. Whether the plot is exactly square is immaterial.

The walled garden is more laughed at than understood by Americans; they are prone to regard the barriers as an affront to liberty. Yet it is one of the most admirable of gardens—which scarcely can be sanctuary when exposed to the full view of the public. The walls do more than provide seclusion, however; they break the violence of chilling and withering blasts and keep out such undesirable visitors as dogs. They also make it possible to grow tender climbing roses and vines, as well as choice fruit.

The Japanese garden is the fourth great national type. As far from the Italian, French or English garden as the East is from the West, its art lies so much in the concealment of art that were it not for the architectural features it would seem as if nature were being imitated instead of adapted. This through the exercise of rigid laws that are not easy for the occidental mind to grasp. It lends itself very well indeed to many American requirements. It fits in with low rambling houses, or bungalows, where roofs are long and hang well over. It is most serviceable in the development of rocky grounds, especially where a small amount of water is at hand or easily obtainable. If a pedant chooses to call the resultant garden Japanesque rather than Japanese, let him.

There are hill and flat Japanese gardens. In the former, if there are not natural rises of ground, they are created, often with such cunning that the eye is deceived into seeing distance that does not

"A rock garden is a semblance of nature. . . . And it can be entrancingly beautiful without the employment of any plants but some of the iron-clad perennials"

Non-Circulating

exist. This idea is helped along not only by the size and shape of the hills and their relative positions, but by the planting of dwarf trees. For both types there are rough, intermediary and finished styles.

All are too complicated to be reproduced accurately by any save skilled Japanese gardeners, but single features are readily appropriated. Very frequently these are worth taking because of a meaning that, though distinctly oriental, may be given an occidental turn. Thus there is a very pretty sentiment to the stones known as "guardian," "perfect view," "moon shadow" and "pedestal," to quote only a few of the names, and the "principal," "perfection," "out-stretching pine," "setting sun" and other trees—all placed by rules that are tradition. Whether one takes no more than the merest suggestion, any good pictures of Japanese gardens will be found profitable study.

A rose garden has a charm so rare that there is nothing comparable to it. Unfortunately it will always be for the few. On anything like a large and comprehensive scale it is a costly as well as difficult undertaking. Then again, excepting on a place of considerable size, it is a wasteful use of space as its glory is transient. To be thoroughly successful the hybrid perpetuals that bloom in June must be supplemented by enough hybrid teas to keep up a show of color until autumn, and the longest possible succession must be arranged in planting the climbers. Even then, pansies, ver-

benas or some of the creeping perennials, as ground covers, and lilies or other tall flowers will have to be relied on to piece out the season. The ground covers can stand for several years if the soil is very heavily and deeply fertilized at the start. Or there are the numerous so-called roses which properly enough might go in. Lavender, where it proves hardy, is very beautiful planted with China roses.

Better for the most a garden with roses, or else a little place apart—too unpretentious to be designated a rose garden. A great many of the choicest roses are not particularly decorative and may just as well be grown in rows on the edge of the kitchen garden—where they can be cut with long stems and in no fear of color robbery.

An iris or a phlox garden is a safer venture. And if stock is propagated for a few years before the definite planting, the expense need be very little; possibly nothing at all, if there are kind neighbors. Nor is there the great maintenance and renewal expense of a well-ordered rose garden.

The iris garden may be made a beautiful place the year round by using no other flowers. The bloom of *Iris pumila, Iris cristata,* the German, Spanish, English, Siberian and Japan irises and the blue and yellow flags will be continuous from April into July, but before and after some of the foliage will be attractive. If the rest of the planting be small evergreens, with a bit of water and some rocks, there will never be the scraggliness that a

rose garden is bound to show at times. Unless it be the curious, but capricious, *I. Susiana,* reject the strange-colored irises. Choose the clear colors and not too many of them in one class, if the garden is not very large.

A phlox garden will start to bloom in April and so late as November there is likely to be a bit of flower color here and there. But all through the winter there will be the broad bronzed leaves of *P. ovata* and the lighter green of *P. subulata, P. amoena* and *P. divaricata.* These are April and May phloxes, but not all of them. Later come the tall *P. suffruticosa* and the taller *P. paniculata.*

Lilies, both the true and the false; primroses, for spring only; speedwells, pinks, bellflowers, daisies and mallows are also well adapted for named gardens.

It is less trouble to buy herbs nowadays than to grow them. Nevertheless a great many more would grow them if they realized the pleasure to be derived from an herb garden. This, indeed, may be made a most delightful retreat as well as a valuable kitchen adjunct. In foliage alone there are enough shades of green and gray to contrive all manner of pleasing pictures. And it is pleasant for the clothing to brush against mint, and burnet and other savories.

For flower color the common calendula, which is a very old pot herb, will give various yellow shades from early summer until well into the autumn. The blue of the common sage blossoms is very

soft and pretty and there are the still softer tones of lavender and rosemary—herbs that unfortunately are very tender in the North. And some of the other subdued hues, such as the red of the flower heads of the burnet and the greenish yellows of the fennel and dill umbrellas, are grateful to the eye. Then there are the little golden buttons of the tansy, which should be in every herb garden because the fresh leaves laid on the pantry shelves will keep black ants away.

In the Dark Ages the monks had medicinal gardens that were agreeable to walk in, aside from their primary reason for being. A medicinal garden nowadays would scarcely sound right excepting as a reserved space in a botanic garden. Yet the garden of simples, which is the same thing, is a too-cherished memory of an age when life was less complicated to be wholly neglected where there is room for it as a special retreat. There would be no obligation, even on the part of a New England conscience, to go "simpling" in it; the flowers properly entering into it would make it a gay enough place in which to ramble for the sheer joy of beholding. Any of the "worts," which are legion, may go into it, and there will be blossoms from the coltsfoot of March to the monkshood of October.

The rock garden, fairly common abroad but rare here, is in the narrow sense of alpine an endeavor to make the plants of the high mountains at home by approximating natural conditions.

"If the borrowing and adapting of ideas is judicious, the garden will have a personal character—in nine cases out of ten better than a slavish imitation"

NOT MAY

When termed a moraine garden, a miniature slope of fine stones is made for alpine dwarfs that do not thrive well in pockets of soil. Broadly speaking, a rock garden is a semblance of nature, which may be no more than the mere planting of native flowers by existing rocks. One great advantage of it is that it need be only a yard square and still be what it pretends to be; there are many tiny ones in England. And it can be entrancingly beautiful without the employment of any plants but some of the "iron-clad" perennials.

A wall garden is not to be confused with a walled garden. It is any wall in the crevices of which are grown appropriate plants. The mortar may be knocked out here and there in an old wall, but it is better to make a dry one—that is to say, one in which the crevices are filled with earth for planting. It is a large or small undertaking, according to desire and circumstance; nothing could be simpler than a simple one.

The water garden is a sufficiently expansive term to cover plants that like "wet feet" as well as those that actually grow in the water; for that matter it may be made up of either, the water being the essential thing. As for pretentiousness, a tub of water sunk in the ground and a single water lily growing in it, with a bit of perennial forget-me-not flourishing in the adjacent moist soil, is a water garden that is not to be sneered at; the birds will tell you that by their actions, if they cannot in so many words.

A bog garden is a wet one, more or less faithfully reproducing boggy conditions. It is just the place for segregating some of the orchids, ferns and other native plants that otherwise are liable to perish in cultivation, or at best grow only half-heartedly. It may be also a peat garden, or just the moister section of one—the remainder to be higher land for rhododendrons, heather, lilies and other peat-loving plants.

Of what may be called sentimental gardens there are doubtless more kinds than will ever be numbered, because any one is likely to extend the list through purely personal promptings of the heart. The best for general recommendation is the garden of friendship. All of the plants in it, of course, are from friends or from seed sent by them; and it is astonishing to find how many are only too glad to contribute. Long-lived, hardy plants ought to be given the preference.

A garden of association might mean this, too; but a wise differentiation is a gathering together of plants—personally and through friends—that come from places of historical and literary interest. Shakspere, Bible and Virgil gardens are among the possible specializations, though all offer obstacles to completeness that few would find surmountable. Enough for most will be to visualize "Daffodils that come before the swallow dares" or some of the other easy references.

The name garden has occasional possibilities that have not begun to be recognized. Rose and Vio-

let may choose either the flower or the color for theirs. Daisy is perhaps not less fortunate in the variety of "day's eye" flowers that extend over the entire season. And there is Lily, with glorious opportunities from May to September. If there be but contentment with one or two kinds of flowers, several other feminine names, and perhaps as many masculine ones, may be coupled with gardens. Is it too small a thing to bestow the name of Mary's garden on a generous planting of "blue-eyed Mary" and "sweet Mary," or Susan's garden on a grouping of the two flowers known as "black-eyed Susan"? Surely there would be something in them to Mary or Susan that an acre of roses would lack—even though there were not a precise matching of eyes.

Color gardens are more dreamed of than realized. Yet they offer a most fascinating field that would not seem hedged in with trials and tribulations if the first thing to remember were not usually overlooked. It is this: there is no statute on the books requiring a pink garden, for example, to be all pink. How soon the eye would tire were there not the green of the leaves; and if the color why not a touch of white? The only rule is to have the name color dominant, and no more so than you fancy. White always is a refreshment and a bit of yellow warms up a blue garden. A red garden ought not to be too red, as this is a hot color in summer; use winter berries and evergreen foliage in generous measure. By skill-

ful planting the garden may be four or five colors in succession. In that event, yellow is a warm color for spring.

The old-fashioned garden is a somewhat confused term. It may mean a formal Colonial garden or a garden having only the flowers of other days, with little or no color and planting order. Either interpretation will answer—in its place. But do not worry yourself to death trying to find out where the old-fashioned flowers begin and the new ones end; it is a hopeless task. If the garden looks old-fashioned, or Colonial, a few anachronisms will not matter a great deal.

There are also two kinds of wild gardens, real ones and crazy ones. The latter are the product of the pernicious habit of mixing various flower seeds together and scattering them broadcast to come up as best they may. The real kind is a bit of the wild brought to the home. It offers no end of attractive possibilities, especially where there is adjacent woodland and conditions may be adapted instead of being created.

Finally, there is the fruit garden—which first is a flower garden, yet seldom figuring in that light. Now that there are all manner of dwarf fruit trees, enchanting spring pictures are to be made. Though the fruit is highly decorative later, there are spaces where flowers may bloom all summer. In early spring the fruit garden may be brightened with various bulbs.

"If a pedant chooses to call the resultant garden Japanesque rather than Japanese, let him"

Mau

Chapter III

LAYING OUT THE FLOWER GARDEN

THE initial step toward laying out a flower garden is to make up your mind not as to the kind that you want but the kind that you ought to have. Although this sounds heart-breaking, it is not so bad after all; it is only a matter of adjusting the mental attitude.

Of course, the kind of garden that you ought to have is the one that is best in the circumstances. In the first place, as has already been said, it should bear a relationship to the house. This does not mean that a house wholly impossible, or only half-way bad, ought to have those qualities duplicated in the garden; nothing could be more senseless than that. It does mean that there should be a certain harmony, if not actual correspondence, of character. True, there might easily be the sort of planning that would so isolate the garden as to shut it out completely from any picture of the house. This would satisfy the passerby, and your neighbor; but how about you? Do you not want to feel that there is a certain homogeneity of atmosphere? Well, you ought to if you do not. If

the house is not right architecturally, strive to conceal its defects by beginning the garden there, so to speak. Sometimes a single vine or a few shrubs or evergreens will chasten architecture wonderfully, and at the same time serve to bridge the house with the garden.

An Italian villa would better have an Italian garden, a Georgian house a formal design of the English type, a rambling farmhouse an old-fashioned layout of no set form, a house built on rocky ground a rock garden, and so on. This is speaking broadly; in actual practice, so far as the average place of moderate size is concerned, the idea is not so much a garden that is technically accurate for its class as one that in its lines, or some distinguishing feature, suggests that class. Nor, as has previously been said, is there any need of its going by this, that or the other name; it may have a dominant Italian note in the broad view, as seen with the house, but at close range reveal such a variety of adapted touches that it can be called only the garden.

There is no occasion to fear that this limitation of plans will be a serious barrier to the expression of individual preference; the combinations that can be worked out are endless. The real limitations enter when decision must further depend on climate, soil, exposure to sun and wind and whether the house is occupied at all seasons, not to mention the matter of time. All these things must be considered, and considered well.

Time, that is to say the amount of leisure at one's disposal, is of the utmost importance. It takes time not only to make a garden, but to maintain and enjoy it. The moment that the garden uses up more time than can be given to it comfortably, it gets beyond its province—play becomes work. And a flower garden is no place for drudgery. Figure out then how much time you can spend, comfortably, not merely during the season just in sight but for at least a few years to come; and cut your garden cloth accordingly.

Climate is safely disposed of only by the elimination of all but the really dependable flowers, remembering always that in some places hot, dry summers are as much of a problem as severely cold winters in others. Soil disadvantages can be remedied wherever expense does not stand in the way. Winds and the force of the summer sun are broken by the planting of shrubs and vines. Little or no sun is harder to get around, though the last resort of a shady garden is far from being one to be altogether deplored; sometimes such a garden is a place of genuine delight.

All this figuring out what is best to be done is prime mental sport for long winter evenings. Those are rare times for the planning of gardens—when the fire burns bright and you can sit and think, devise and revise, with the comfortable feeling that spring is still well in the future—that there will be no call to dig on the morrow.

Hurry, indeed, is the last thing to enter into the

planning of the garden. Much has to be thought out, and thought out means threshed out until there is clean winnowing of the impractical from the practical.

Preliminaries out of the way, the paper stage of the game passes from memoranda into the definite form of a plan to scale. Blessings on the man who invented cross-ruled paper; with it laying out a garden is child's play, even for the unmathematical mind. This paper comes in sheets, 17x14 inches, and is ruled in little squares that run thirty-six to the square inch. The squares may be called any convenient unit from a square foot up, and if one sheet of paper is not large enough two or more may be pasted together.

With a steel tape, if you can get hold of one, take measurements of the boundaries of the entire home grounds and the base lines of the house and any other buildings. Then get the distance of the house from the boundaries and locate by further measurements all existing roads, paths, trees, shrubs and borders. Having decided on your unit, transfer these measurements to the cross-ruled sheet and you have a plan of the place all ready for laying out the garden by exact scale. This plan would better settle only the location and size of the garden.

A large plan of the garden in detail should then go on a separate sheet; this to be a working scheme for planting. Here it will sometimes be found very convenient to call every six squares

"Better for most a garden with roses, or else a little place apart—too unpretentious to be designated a rose garden"

each way a yard, which gives plenty of space for numbers or other designations.

All borders should be not less than four feet in width; six is better, and they may run up to ten or twelve feet if there is access from both sides. Three feet is a good average width for a path, but if growth is eventually to fall over both sides allow another foot.

Straight lines depend largely upon the amount of formality that is to enter into the plan. Sometimes, however, they are considered as the means of saving work. Every variation from straight lines calls for more labor of maintenance, as well as construction, and the same is true of the multiplicity of beds and borders in a layout. The time to think of both things is when the paper plan is taking shape.

At this point, too, it should be borne in mind that laying out a garden does not necessarily imply that you are binding yourself to do all the work designated before the next summer has flown. As a matter of fact, in the case of any layout of size or one of complexity, the better way is to make only a start the first year. If, as is again and again the case, the start is a wrong one, it will be the more quickly remedied.

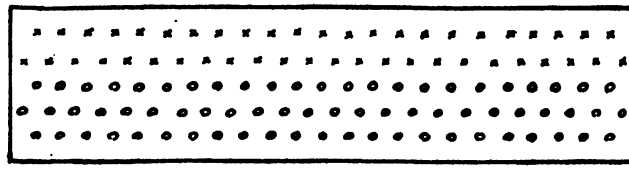
Suppose the garden scheme to be a bordered path leading down to a parterre plot. Plant only the path border the first spring and let the remainder simmer until autumn—when it can be made ready for planting the following year. This

is not altogether a question of dividing the labor, though that is important enough; you learn a lot as you proceed with the work and the final shaping of the plan will be easier as well as more satisfactory for the experience. If it is convenient to make ready the parterre plot the first spring, fill it up with annuals as a temporary measure.

Greater restraint than this may be exercised, and it is good advice to follow where pretty nearly everything is to be learned about plants—color value, foliage effect, manner of growth, hardiness in a given locality and the season and duration of bloom. These things are best learned by doing all the initial planting in some out-of-the-way place like one end of the vegetable garden. Lay out long beds about six feet wide and grow your flowers there for a season, or even two or three—until you feel competent to handle them with intelligence. Plant in transverse rows, wide enough apart to use a hoe, where rapid increase of hardy stock is desired and in small groups to experiment as to color combinations and other effects. It takes courage and patience to do this, but it pays in the end.

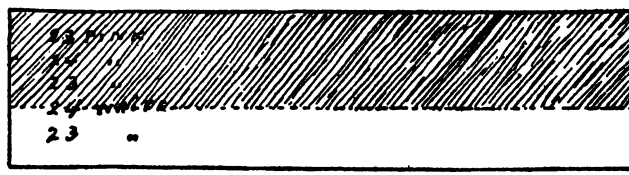
These are more thoughts for winter evenings. Meanwhile, the paper plan is only an outline of boundaries. The filling in of the details is simple or complex, according to the variety of plants used and the character of the color scheme. A border of Canterbury bells, white in front of pink, may be indicated on cross-ruled paper in this manner—

calling each one of the squares a square foot:



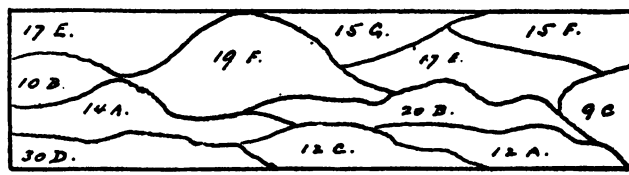
CANTERBURY BELLS—24x6 FT.
O-PINK X-WHITE

Or in this way, the shading indicating a color:



CANTERBURY BELLS—24x6 FT.

If the plants are in long drifts and big patches, show them so:



MIXED HARDY BORDER—24x6 FT.

A - ARABIC ALBIDA (White)
B - PHLOX DIVARICATA (Blue)
C - GRASS PINK, HER MAJESTY (White)
D - PRIMULA VERIS SUPERBA (Yellow)
E - PHLOX, MISS LINGARD (White)
F - PHLOX, ROSENBERG (Violet Red)
F - PHLOX, MRS. JENKINS (White)

Apply a thin wash of water color to the sections, before the letters and numbers are put on; the indication will be all the clearer. In the final stage it is advisable to color the entire plan, using green for all grass plots and brown, gray or brick color for the paths, according to the material.

Catalogues begin to come along in January; so that these may be gone through and the selection of plants and seeds made as the work of planning progresses. Early decision and early placing of orders is wise; you get the pick of the stock, which sometimes runs out altogether before the late-comers have been heard from. There is no danger that early orders will be shipped too soon; they merely take precedence.

Chapter IV

HOW TO SUCCEED WITH FLOWERS

To grow flowers successfully one thing, perhaps above all others, is needed. This is plain, ordinary gumption.

It is all very well to say that flowers will grow for those who love them; that so and so has only to put a stick in the ground and it will blossom, and that sort of chatter. One might as well assert that good bread, cake and preserves are products of affection rather than of skill. As in everything else, there is a certain knack in growing flowers.

This knack comes unconsciously to some, being bred in the bone. Others, who are the great majority, have to acquire it. Usually the process of learning is a slow one, not because it need be but because of the wrong notion that the heart is the guide of guides.

Far from it; the head it is that leads to success in the garden. The hands are the chief aids, and once in a while the feet are called upon to do more than walking. Heart, in the sense of sentiment, has been known to be absent altogether. But it ought to be there always, only properly

dominated by the too rare quality of common sense.

Nature is the great fount of garden knowledge. Go to her for the elementals. From her you will learn how plants grow, bloom and ripen their seed; how natural gardens are planted, how colors are arranged, how the annual has its place and the perennial its, how winter protection is given, how evergreens serve a purpose—in short, the all of the how.

The more you know nature the better gardener you will be. She teaches the why and wherefore of everything, if you will but open your eyes to see; and she makes learning a pleasant pastime.

The whole point is this: All gardens are nature humanized, to a greater or less degree. The humanization proceeds successfully only as you follow natural laws. You may bend those laws a bit, for the time being, but you cannot alter them.

Ignorance of first nature principles is shown on every side by the very bad habit of thinking that blossoms are the beginning and end of a plant. They are not; they are an episode in the life of a plant. In numerous instances they are not the most attractive episode; the foliage at one stage or another, or the seed, may be a great deal more beautiful. Let this sink firmly into the mind. A lily is more than blossoms; it is a plant, and one of a particular class in nature's wise ordering of things. With that class always associate it.

A person, whose family name happens to be Legion, once said when spring came around: "My

Canterbury bells all died." Of course, they did; their time had arrived and they went the way of their kind. This person should have known that some plants are biennials, of which the Canterbury bell is one. Biennials, relatively few in garden cultivation, bloom normally in their second summer from seed; then they die. Occasionally, when the seed is sown later than spring, they survive two winters.

Annuals, as the name implies, are plants of a year. They are born in the spring and if their life has not spent itself by the end of autumn the winter's cold blots it out. In gardens, seedlings from sowings too late in the year to bring the plants to maturity will sometimes bravely endure a winter rather than perish in unfruitfulness. The name annual is necessarily elastic in the usage of cold climates, as freezing will kill some plants that naturally would go on flourishing. Thus the four-o'clock, unless the root is taken up and stored for the winter, is an annual in the North, though in its native tropics it is a perennial.

Strictly speaking, all trees and shrubs as well as those herbs that are neither annual nor biennial are perennials; the first two are differentiated as woody, the last as herbaceous. In garden usage perennial is hardy herbaceous perennial, for short. Herbaceous plant and hardy plant are occasional alternatives. Bulbs, although veritable herbaceous perennials, are usually classed by themselves; which is convenient if it is not botanical,

Herbaceous perennials are the largest class of garden plants and because of their durability they are the most valuable one. Their life runs on indefinitely; two or three generations may see a peony or fraxinella growing in the same spot. It scarcely can be said that the individual lives years without number, as in the case of a tree. Often there is the appearance of this when old plants have not been disturbed; but the fact is that the root system expands from year to year, forming new crowns for blooming. With the development of the new comes a more or less gradual dissolution of the old, according to the nature of the plant. Bulbs create new units as the old ones die and shrink and wither away.

Whatever is herbaceous is supposed to die down to the ground in winter. This many herbaceous perennials fail to do. Not a few, such as the pinks and the creeping phloxes, have evergreen foliage —which is a very fortunate thing indeed. That beautiful St. John's wort, *Hypericum Moserianum,* is known as herbaceous, but is more like a dwarf shrub.

Annuals and biennials have a root system that generally permits of no division. They are therefore grown from seed; or, in certain cases, from cuttings. The more nearly the root is a long tap with very fine rootlets, the more difficult transplanting becomes; that is why it is advisable to sow the seed of annual poppies, sweet alyssum and mignonette where the plants can remain, the surplus being

"A narrow strip of turf between a border and a path always has a refreshing look"

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thinned out gradually as the plants become crowded.

Perennials, on the other hand, have spreading root systems that, after the second year or so, are more or less readily separated by either pulling or cutting them apart; bulbs separate automatically. The roots of perennials are sometimes a spreading network of fibre; again the system is largely concentrated in a fleshy stock, a tuber, a rhizome or a bulb.

It is essential to learn these things, for the reason that knowledge of plant life below ground, as well as above, is no inconsiderable factor in successful cultivation.

Associate a plant with its class and characteristics at the very outset. Do not be content with half knowledge; you get nowhere with that. If some one gives you a plant of purple German iris that you had admired when it was in bloom, do not begin by thinking of it as a lovely purple flower with three petals curved upward and three in falls. Think of it as a perennial—ask if you are ignorant—with, as you can see for yourself, roots of a rhizomatous character. If you have not learned that in nature such roots grow horizontally and near the surface of the ground, sometimes showing a little above it, find that out, too, by inquiry.

Very soon the observation of these details and their merger into a comprehensive whole becomes second nature; you know a plant as an individual without any more process of reasoning than when

you mentally distinguish the pine as an evergreen tree or the grape as a deciduous vine.

A frequent cause of failure with flowers is what may as well be called footlessness as anything else. That is about what it is; an aimless plunging into the task with good intentions but an appalling lack of common sense. Footlessness cuts a strip fifteen inches wide out of the lawn on the west side of the house, and quite near it, and plants in what it is pleased to call a border some roses or some peonies, without any enrichment of the poor soil. Common sense would have ascertained before a spade was put in the ground that roses and peonies must have a sunnier position, that they are gross feeders and that without a wider border the grass would encroach on their territory in no time.

Footlessness plants sweet peas in dry, poor soil, three weeks late at that, and then wonders why the woman next door "always has such good luck"; it undertakes to establish a rose garden in an obviously unsuitable location; it piles manure on top of foxgloves, which become rotten pulp before spring, and then cannot see why they should "winter kill"; it takes home plants that friends have given and sticks them in the ground with so little care and thought that the wail that they "didn't live" goes up; it transplants hollyhocks six inches apart and pansies fifteen—it does a thousand things wrong. And all for the want of taking pains to find out the right road to travel.

Taking pains looms large in the garden gospel,

If your cousin's wife has famous larkspurs every summer—larkspurs more than six feet tall and with enormous spikes of bloom—that is not "Serena's luck"; she took pains. Serena took pains to secure the very best seed, or plants, obtainable; you may be sure of that. She took pains to prepare a bed of deep and well-drained soil for them and to enrich the same without letting manure come next to the roots. Every May she takes pains to work a little bone meal into the soil around the plants. And she stakes the plants in time; early and late she is mindful of her larkspurs—which she knows will respond quickly enough if she gives them what they want. Serena is "on to her job," or everybody would not be talking about her larkspurs.

It is not luck that counts; it is ordinarily intelligent labor. If only everyone would realize that this uses up no more time than pottering, not infrequently a great deal less! The labor that makes for success is marked by the timeliness that finds it materially easier to get ahead of work than to lag behind it. Things are done when they ought to be done. Labor is thus so distributed through the season that at no time does it become wearisome enough to cease to be a pleasurable recreation. And by system every step possible is saved.

All this is helped along by a good memory. Every successful grower of flowers has a good, or, at any rate, a serviceable, one. The memory may

be bad indeed as to Latin names, but it seizes upon essentials and holds them ever ready for use. The mind in time develops into what is virtually a perpetual garden calendar; you feel instinctively that such and such things are to be done at certain times of the year.

An element of success always is the careful avoidance of attempting to do too much. Your neighbor around the corner has the banner sweet peas in town; but if he tried to beat every one in roses and chrysanthemums also he would fall down in all, for it happens that he has only a comparatively little time to give to flowers. Being especially fond of sweet peas, he devotes himself to them and lets who will excel in other directions. That is the right spirit.

Not the least of requirements is eternal vigilance—a watchfulness that becomes a habit, but never a burden. It has a keen sense that sights the bugs from afar, that detects any invasion of weak plants by the strong before it is too late, that feels Jack Frost in the air—that ever is at one with the life of the garden.

CHAPTER V

SPRING WORK IN THE GARDEN

Too many there are who look out of the window of a February day and sigh: "Oh, I wish that spring would come, so that I might work in the garden again." Not so the wise gardener. Already he is up and doing; for he knows full well that spring, so far as its particular garden chores is concerned, is then at hand.

There are February days when little or no snow lies on the frozen ground. Then is a good time to spread on it some manure, to be soaked into the soil by later snows. If it has to be wheeled, or carted, over the lawn it can be done at that time without ruts being left on the turf. Where plants are green above ground, as not a few perennials are, place the manure around them, not on them.

In February, too, take the pruning shears outdoors between snows and cut off from the shrubs branches that the winter storms have broken, or any that show unmistakeable signs of being dead. Throw them into a wheelbarrow as you go along, to save a second handling, and at the same time

gather up fallen twigs and other refuse; then make a pile of the rubbish in a suitable place for the first spring bonfire. In your garden wanderings look for the green spears of the snowdrops; if they show, favor them by pushing aside a bit their blanket of dead leaves.

March is the best time for pruning all of the roses but the teas, which can go until April. If large blooms are wanted, cut the canes of hybrid perpetuals back to within six or eight inches of the grounds. Only a few "eyes" are required and it is best to let the top one on each cane be an outside one in order that the growth may be outward and give a spread to the bush. Cut off at the base all weak and dead canes; also any that come from below the graft. Bushes of such old roses as Madame Plantier, Damask and Harison's Yellow need have only the dead wood cut out unless the branches crowd each other too closely. For the climbers the same, but weak side shoots, dead cane ends and all wood that has lost its usefulness for blooming ought to be removed. Have the wheelbarrow at hand to receive all cuttings and dump them at once on the bonfire heap. When pruning roses always wear gloves.

There will also be some pruning of shrubs and vines to do in March. The shrub rule is to prune in spring only those that bloom late in the season—*Hydrangea paniculata,* for example. Live wood taken from the spring-blooming shrubs, such as forsythia, weigela and deutzia, only robs the sea-

"It is in the springtime that bulbs are of the most value in the garden. At that time of the year they are simply invaluable"

son of a part of its flowers. Vines that make an exceedingly vigorous growth each year, like *Clematis paniculata,* are usually pruned very severely.

Crocuses, *Scilla sibirica,* glory-of-the-snow and the common coltsfoot need a little watching in March, that their bloom may not flash in the pan because of too much covering.

Burn up in March all rubbish, including any rakings, that may have been gathered; if it is dry, it is quickly disposed of and is that much out of the way. The village fire rule of making a bonfire not less than thirty feet from a building is a good one. If the wind is toward a building even twice that distance away, or is blowing very strong in any direction, wait for a more favorable day.

A dry pile of rubbish may be started by thrusting a crumpled sheet or two of newspaper under the bottom on the windward side and touching a match to it. When there are green twigs to be burned, it is better to make a more careful job of it. Put some paper and dry grass on the ground and then the dry twigs and wood on top. Add only a portion of the green stuff, or there will be too much smoke, and feed the remainder when the fire is burning briskly. Throw on whatever rubbish the house and barn hold. And never let the fire go long unwatched; not at all if children are about.

Look over the garden tools; sharpen the old ones and order the new ones, that April may find

nothing unready. In odd moments cut stakes of various kinds and make or repair trellises.

On the first day of April, some years a little earlier, it is safe to uncover the flower beds in gardens as far north as Connecticut. It is better for the plants, and easier for you, to do this gradually. The point is to give light and air to plants that have begun to grow, thus preventing the blanching that weakens shoots and foliage. Begin by lifting leaves or other covering from the top of plants like grass pinks that remained above ground all winter and from bulbs that are piercing the soil.

Use the hands if there is little to do; if there is much, take an iron rake and draw off gently, taking care that the teeth do not sink deep enough to tear creeping plants or root up the little fellows. Carry all coarse stuff, like stalks, to the bonfire, but give the leaves, which have not begun to lose their usefulness, to the compost heap.

Take off from time to time the litter between the plants or, if well rotted and there is plenty of space, work it into the ground. This is readily done with roses and peonies, for both of which the leaves in the soil will be very beneficial. Leaving some of the litter between plants serves to keep the ground warm. It is nature's way and is not necessarily untidy. If plants need to be coddled, a little pile of litter may be left near them against cold April nights; some gardeners invariably do this with tulips and hyacinths. In such

cases, of course, the covering must be taken off the next morning unless the weather is extremely severe. Few hardy plants, however, are injured by April cold; bleeding heart, astilbe, crown imperial and some of the lilies, which have tender shoots, are exceptions. The greater danger is too much protection once growth has set in.

One reason why so many plants "winter kill" is because they are murdered in spring. Each, if it disappears for the winter, has its own time to show itself, and unless its precise location is remembered—which ought to be the case—it is unsafe to put an implement into the soil, lest something be beheaded and, lacking the strength, fail to rise to the occasion a second time.

When April, say, is half over remove the last of the litter, if it is not to remain to be worked in. Use the left hand, and a basket, for this, and, with a two-tined steel table fork or the point of a narrow trowel held in the right hand, stir the soil gently around the crowns of plants and between—if you are sure that everything is above ground or so far below that cultivation will not be hazardous. At the same time, pull up any weeds that have got a start—some will have survived the winter—and destroy, or remove to a nursery row, all seedling plants that are out of place. Make a note, too, of plants that require division or transfer to a more favorable location.

Early cultivation of the soil is among the most important of April operations. It not only en-

courages growth, but weeds then will not get ahead of you. Use a hoe wherever possible; it saves a lot of time and is more effective. Cultivation may begin as soon as the soil is dry enough to be easily worked.

Wherever the bed or border is next to a grass plot, straighten the edge of the turf. Use a sharp spade and a line if a turf cutter is not available. After shaking off some of the soil, throw the clods of turf into a wheelbarrow and make a new compost heap or extend the old one.

A simple way to start a compost heap is to lay out a square or rectangle in a place remote from the house and yet not inconvenient of access, by placing on the ground clods of turf, with the grass side down, something after the manner of a foundation. If there is enough turf for walls a foot or more high and a flooring as well, so much the better. Throw into this kitchen refuse, lawn clippings and any easily rotted garden waste that does not contain weed or grass seeds; burn these. Cover lightly with earth any decaying matter that attracts flies. By the following spring the pile will be valuable fertilizer.

Before April is past much of the transplanting is out of the way if time be taken by the forelock. Hybrid perpetuals, old-fashioned bush roses, climbing roses and flowering shrubs are best moved when the leaf buds have not begun to expand and the transplanting should therefore be done early in April; even late in March if the ground is ready.

Aside from spring-blooming bulbs, lilies, peonies and bleeding heart, hardy plants are shifted in the latter part of April and early in May to rather better advantage than in the autumn, though there is no rule save convenience and the exigencies of the case.

If note of what is to be moved has not been made already, look over the garden with pencil and paper in hand and get a line on things. Before digging you are supposed to have some idea of what sort of a root growth a plant has, that you may favor it as much as possible. Excepting with tap roots there is no special risk if most of the soil falls away but it is safer to have a good ball of earth, which is not difficult in spring when there is plenty of moisture to hold it together. The ball is less likely to split if the trowel, or spade, is pressed deep into the soil on one or two sides and withdrawn, the actual lifting being then done from a third side. When a very large plant or shrub is to be handled, first prepare the new hole. Then it may be carried there on the spade that has lifted it and there is less likelihood of the ball of earth splitting. If the distance is far, lay the burden, spade and all, on a wheelbarrow and look out for rough places in transit.

When you can do so, choose for transplanting a day when the sky is overcast or when you have an idea that rain will be along soon. Then, perhaps, you will be able to do away with the trouble of watering. As the plants are dug lay them care-

fully in a basket or wheelbarrow and protect from the hot sun; the roots dry very quickly. As a rule, take up only what can be replanted before nightfall; any held over may be placed in the barn or cellar after being sprinkled lightly. Put all plants that are not required for the garden scheme in rows in a nursery bed, dividing them into as many parts as you can. They will be useful there in three ways—for increase of stock, gifts to friends and bouquet flowers. The greater part of the spring flowers may be lifted with safety even after they have begun to bloom; give them plenty of water.

Plant always in a hole deep enough and wide enough to a little more than take the ball of earth that holds the roots. If the bottom of the hole is hard, loosen it with the point of the trowel or spade. Where the ground is dry fill the hole with water and let this soak in thoroughly. Then sprinkle the bottom with a little soil and set the plant down, steadying it with the left hand to keep it upright and filling in with the other until it stands alone. As the remainder of the soil is filled in, press it down with the hands or feet. Unless there is a drought, a second watering will probably not be necessary, but the plants must be watched until the next rainfall.

Many flower seeds cannot be sown outdoors with safety until late in May, when, as the seedsmen say on their little packets, "danger from frost is over." April therefore ought to find a cold-

"The peculiar advantages of the double border are the creation of delightful vistas and the greater enjoyment of a stroll where attention is not confined to one side"

frame getting a start of the season, provided that autumn forethought did not make one ready the year before. This can be purchased, knocked apart, or with some narrow boards and one or more window sash it is a matter of little time to put one together at home. Plant in it in April or very early in May seeds of annuals for blooming ahead of those sown in the open ground; also seeds of perennials, for years to come. Sow the seed in rows and at the head of each place a number on the inside of the frame, this to correspond with a list giving the name opposite each number.

Seed is always "bad" whenever it fails to come up. The truth is that seed from a reliable source is good, but very frequently the planting is bad. Whether in a coldframe or in the open ground first see that the soil is loose and quite free from lumps and grit, adding a little sand if not light enough. Press the soil down with a small piece of board to get a smooth surface. Scatter the very finest seed, such as that of the poppy, broadcast on the surface and sift a very little soil over it. Sow larger seeds in rows, made with a sharp-pointed stick, the depth being about twice the diameter of the seed. Pour the seed into the palm of the left hand and drop it with the thumb and finger of the right. Or, if done adroitly, the dropping may be done through a small hole made in one corner of the seed envelope. Plant very large seeds one by one and an inch or so apart in the row, to avoid the labor of thinning out.

After the sowing in rows, fill in with soil and then—in broadcast sowing as well—press firmly and evenly with a bit of board. Cut a piece of white cotton cloth large enough to fit the surface of the soil, lay it down smoothly and do all the watering, with a sprinkler, through this until the plants begin to show above ground.

If the stand is good, thin out rigidly. When the first two true leaves appear thin out the weaker ones or, if a large stock is wanted, transplant to another frame. Seedlings that are so close together as not to be easily separated by dividing the soil with a small trowel or knife may be lifted in clumps and dropped into a shallow pan of water. There the soil is turned to mud and the seedlings will pull out with no injury to the rootlets.

At the end of May the annuals will be large enough to move to their permanent place in the garden, either by themselves or as fillers among hardy plants. The perennials may remain in the frames, to grow on, until summer, autumn or the following spring.

May weeding is the salvation of summer, when garden work is less invigorating. Go over the garden carefully and between times pull up every weed within easy reach as you walk about. Loosen with a trowel any weed or bit of grass that does not yield at once, so that no roots may be left behind. In May also dirt walks will need hoeing and lawn edges of borders another very careful clipping.

In the latter part of the month, after a rain, sift some powdered hellebore over the roses to ward off insect ravages.

CHAPTER VI

WORK FOR SUMMER DAYS

WHEN June is well under way, the gardener rests on his hoe and draws a breath of relief. But only for a moment; work must go on and on.

Theoretically growth should now cover the ground completely. There are bare spots, however, and weeds are struggling to get possession of every one of them. Such spots must be gone over at least once, and there are the paths to hoe again. All of which is very prosaic when there is a riot of roses and the Canterbury bells and foxgloves are vying with them and each other.

Pruning the shrubs that have bloomed in spring is a task of early summer. Most will stand plenty of cutting back, as it is the new wood that will furnish the next year's blossoms. Limit the pruning of lilacs to the removal of weak and superfluous branches and the disfiguring seed clusters. Pinch off the tops of hardy chrysanthemums, to make them branch. In August pinch off the ends of the branches.

Bugs demand June attention. The principal offender is the rose bug, which is not satisfied with

his June fodder but must needs feast upon the Japanese irises of July. Fortunately he is big enough to handle very conveniently between the thumb and forefinger. Pick him thus from the rose or iris and drop him into a wide-mouthed pickle bottle partly filled with kerosene oil. If you object to touching this creature, which has a special hankering after white blossoms, poke him into the bottle with a little stick; the end, not the means, is the important thing. Gather up the rose bugs every morning. Once in a while empty the bottle on the ground and touch a match to the mixture of dead bugs and oil.

Snipping, of which the summer brings a great deal, begins in June—if May has not been a reminder of earlier needs. This is snipping with scissors and the objects are two—neatness and prolongation of the blooming period. As soon as a flower fades, if no seed is wanted, snip it off, with its individual stem. Then the plant retains its attractiveness. And it is astonishing how much difference this little thing makes, especially with such flowers as the rose, iris and peony. The later blossoms not only have more room for expansion but benefit by strength that otherwise would go into the development of seed.

Pansies planted in a partially shaded place and treated in this way will bloom quite freely into August and sparsely until winter. Canterbury bells and some of the other bellflowers, whose beauty is seriously marred by the brown of even a few

faded blossoms, will give a second crop of bloom if snipped. Snip hollyhocks, foxgloves and annuals that self-sow freely, as their progeny is sometimes as much of a nuisance as weeds. Let the blossoms and stems fall to the ground, between the plant, to serve as mulch and soil nourishment if this can be done without making an unsightly appearance.

Remove flower stalks from June on, when bloom is entirely over, cut down plants whose foliage has turned brown and pull up by the roots biennials and annuals that have bloomed themselves to death. Leave hollyhocks and foxgloves if they show new crowns, as sometimes they send up small second stalks of bloom.

Fill in the spaces thus created, and those left earlier by the dying down of the spring bulbs, with annuals from the coldframe or seed bed, or with potted plants. In some way all the garden gaps should be filled as summer progresses.

Transplanting is safely done on the hottest of summer days, though cloudy ones would better be given the preference. Use plenty of water. Shade for a few days with pots, slats or cotton cloth stretched on pegs, if the plants look as if they would wither quickly. Toward evening is the best time for the work. Where a plant is very choice, or the roots are not strong, minimize the risk by filling the hole with water once or twice and letting it soak in. Set the plant in a little lower than usual and only partly fill up with soil. Then add a thin

layer of wet lawn clippings, more soil and a light top dressing of the clippings.

Mulching is a summer task much more honored in the breach than in the observance. It is always beneficial, and when there is a long period with little or no rain it is the alternative of tedious watering. Sometimes water is so scarce that mulching is the gardner's only solution.

Either dry soil or lawn clippings and other vegetable matter may be used as a mulch. The dry soil is simply the surface of the ground kept loose by frequent cultivation—a good thing in summer even when the season is normal. Lawn clippings are an excellent mulch, but they must be spread very lightly as otherwise they heat. Or a thin layer of wet clippings with a litle dry soil on top may be used. Tall weeds—if there are no ripe seeds on them—flower stalks and discarded bouquets make good mulch when run through a hay chopper. Then there is leaf mold, but that is rarely at hand.

Spraying with the hose toward evening always freshens plants in summer. But real watering has to be done only when digging into the ground a little shows plainly that the soil is abnormally dry; do not wait to find this out by the appearance of the plants themselves. Watering having to be done, do it thoroughly rather than frequently. Set the hose where the spray will fall like so much rain, and leave it there until the ground is well soaked; then water the next tract. A still better way to fight drought is to dig a circular trench around

a plant, or a straight one between rows, fill this with water two or three times and then put the soil back in place. A day or two afterward cultivate to keep the soil from baking.

Potted plants, even when sunk into borders to fill up the empty places, dry out quickly and may be crying for water when their neighbors are not. This is particularly true of *Hydrangea hortensis,* one of the hardest of garden drinkers. Use a watering pot with a long spout and no spray.

Seed gathering goes on all through the summer and into the autumn. It is worth while when there is a good strain and when the flower is one of association. It is not worth while, in many cases, going to the trouble for the sake of mere economy, for seed is comparatively inexpensive. Poppy seed, for instance, is easily saved, but gathering and drying China aster seed is bothersome and it means the sacrifice of several blossoms to concentrate strength in one.

Some seed, like that of the fraxinella, must be gathered before the pods split; or it will be scattered far and wide. Upright receptacles, such as the columbine and iris have, may be left until they have split a bit. Generally the seed is dead ripe when the pod, or in the case of composite flowers the head, is brown. Cut off pods carefully, so as not to spill any of the seed, and place in a saucer to dry; if the seeds are of the shooting kind, cover the saucer to prevent their escape. Usually they will dry sufficiently in a day. Shake out any

"It requires no profound knowledge of garden material to work out these beautiful forms of garden expression"

Mau

seed remaining in the pods and throw the latter away. Then winnow the chaff by blowing gently with the breath across the saucer. Dry composite heads by hanging them up in a paper bag, out of the reach of mice, for a fortnight or more; then shake or pick out the seeds and get rid of the refuse.

For carrying seeds through the winter, or for making up packets for friends, the little manila pay envelopes that open at one end will be found very serviceable. Seed that is as fine as dust must first be folded in tissue paper; otherwise it is likely to leak out of a corner of the envelope. Or, instead of the envelope, a small piece of white paper folded after the manner of a druggist's powder wrapper will do. Label the packages with ink, and be sure to state the year as well as the kind of seed.

It will be well to sow the new crop of perennial seed on the first of August or thereabouts. Bloom cannot be looked for in some cases the next year, unless the seedlings are given the benefit of a hot-bed later, but the plants will have a better start than if the seed is held over the winter. Sow in a coldframe or in the open in a seed-bed, which it is always well to have on the place for this purpose and for cuttings of perennials. Proceed as with the May sowing of seed, but shade with laths and be careful that the ground does not dry out. Transplant the seedlings in rows when large enough. They may then be removed to permanent

positions in autumn or wintered where they are.

Cuttings are also planted in rows. They root readily in summer if kept well watered and shaded a bit at first. This is a good way to propagate grass pinks, *Arabis albida* and Torrey's pentstemon. Pull off sprigs that have half-hardened wood at the base; do not cut them off, because that makes it less easy for the callous that precedes rooting to form. Some of the perennials, especially the creepers, will furnish cuttings that already are partly rooted.

Summer work is most comfortably disposed of in the cool of the morning; leave only transplanting and watering for the other end of the day. If the work is properly spread over the period, the time spent will hardly be missed.

CHAPTER VII

THE GARDEN'S NEEDS IN AUTUMN

THE work of the garden year is materially less arduous when a proper proportion of it is spread through the autumn months. A good garden axiom is to leave nothing until spring that can be done in autumn. No matter how much is gotten out of the way, there need be no fear that one cannot find enough to do in spring.

It will not kill peonies to move them in spring, but the best month is September. Oriental poppies and *Lilium candidum* are transplanted the month previous, as they make a new foliage growth in early autumn. The other lilies are generally moved in autumn, or a little before that if the foliage has died down; the spring bulbs in October. This is about all that there is to the necessity of autumn transplanting.

The advisability of autumn transplanting is quite another matter. It applies with particular force to the making over of the hardy garden, which is done to advantage every few years. There is more time to do the work in autumn than in spring and if the planting includes bulbs, other than the rarities that bloom after September, everything

can be taken out. Though not necessary, this is always a good plan.

In that event, lift out all the plants and lay them on old bagging or canvas spread on the adjacent path or grass plot. This saves cleaning up afterwards and, if the cloths are not too long, plants may be carried in them to another spot. Then spade the ground twelve to eighteen inches deep and work in some well-rotted manure, unless the planting is to be of lilies or larkspurs; these do not like to come in close contact with that kind of fertilizer. Leaf mold is always a good addition and if the soil is heavy a little sand may be mixed in, too. If possible, have all the plants back in the ground by nightfall; if not, place them under cover to keep the frost away from the roots. Separate into parts any plants that are large enough. When the ground is tolerably moist no watering need be done, but it always helps a plant to re-establish itself quickly.

The category of advisability also includes the transplanting of a considerable number of the perennials that bloom in early spring—more especially those of April. These can be moved in April, but the bloom is more satisfactory when the plants establish themselves before winter and thus have a chance to develop foliage and blossoms without any setback. The bleeding heart, all the primulas, *Arabis albida, Phlox subulata, Alyssum saxatile* and coltsfoot are some of the plants that it is wise to transplant in autumn.

Certain of the biennials notably foxgloves, Canterbury bells, hollyhocks and *Myosotis dissitiflora,* it is well to transplant to the beds in which it is proposed to have them bloom the next year, if this has not been done already; likewise summer-sown pansies, violas and dianthus. Move into their permanent places any perennials grown from seed and likely to bloom another year.

Where there is actual danger of winter-killing, very young biennials and perennials may be carried over in a coldframe and bedded out in April or May. This is also a good way to catch up, if planting has been late or growth slow; development then goes on through the autumn and is resumed early in the spring. Put only a few leaves in the frame; just enough to cover the plants lightly, as if the fall had been natural. Bank earth against the frame and when winter has set in lay a piece of rush matting or some cornstalks on top of the glass. If there are warm days, let in some air and light in the middle of the day when the sun is warmest.

Planting in autumn has a slight distinction from transplanting, for in the case of purchased plants and bulbs the time is sometimes regulated by trade exigencies. Thus lilies, other than *L. candidum,* may be transplanted in September and October, but purchased bulbs, especially the imported ones, are slow getting to market. Lily bulbs from Japan are planted in November and even in early December, the ground being kept from freezing by

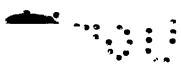
a heavy cover of manure. A good bulb rule is to have crocuses and daffodils in the ground in early October and other bulbs by the end of the month if they arrive in time.

Allow about two inches from the base of the bulb to the top of the ground for small bulbs and about five inches for the larger ones. If the lilies are stem-rooting kinds, allow six to seven inches. For planting crocuses, scillas and snowdrops in the lawn there is a special dibble; where that is lacking use a pointed stick to make the hole. Whether bulbs are planted in the garden or in the grass, press the soil firmly over them. A little sand under and around the bulb is a good thing for lilies, hyacinths, tulips and fritillaries. Both of the best known fritillaries, the crown imperial and the guinea-hen flower, have bulbs that are slightly hollowed on top. In order that too much moisture may not settle in the hollow, it is customary to plant them tilted a little.

In general, autumn planting of perennials that either have to be purchased or are acquired by gift is the better way out when the plants bloom as early as April. In the matter of purchases especially, the result is much more satisfactory in certain instances. Thus most of the primulas in the trade are grown in pots from seed and, being kept in coldframes, are likely to arrive with the bloom almost or quite gone; by autumn planting a year would have been gained.

So with leopard's bane, aubrietia and trollius.

"Where the house and lawn are framed only by shrubbery borders, the flower borders being largely, or quite, out of the picture"



Again some roots, like bleeding heart, are dug up in autumn and stored as the only means of early spring delivery. Better winter them in your garden than to buy them in spring, possibly sprouting and consequently weakened.

Of later-blooming flowers it is well to plant all of the irises excepting the bulbous ones in September, as spring will then find them well established instead of trying to readjust themselves the while they are gathering strength to bloom. Bulbous irises are planted in October. It is well also to plant *Phlox paniculata* in September, or October. The reason is the same; though less urgent, as the blooming period is later.

Frost begins to be a serious problem some time in September. Very often one or two frosts come quite early and then there will be no more, perhaps, until October. For this reason it is deplorable that the first frosts are allowed to blight the garden. Most of the hardy plants will stand frost after frost. The Japanese anemone is an exception; this needs to be covered on frosty nights, otherwise its beautiful bloom is likely to be lost. When hardy chrysanthemums are neither close to the house nor where there are tree branches overhead, the large-flowered kinds would better be protected; they endure cold but the frost gets in the mass of petals and, melting, streaks the blossoms with brown.

Some of the annuals and all of the tender bedding plants are the ones to look after chiefly; and

these really repay wonderfully the little care that it takes to prolong their blooming season. Pansies and sweet alyssum will stand the frost; the calendula and scabiosa a great deal of it. Look out for cosmos, dahlias and geraniums in particular.

White cotton cloth laid over plants is the handiest protection. Frost comes when the wind has gone, and the cloth is just heavy enough to stay in place by its own weight. If it presses too heavily anywhere, put a stake underneath. Newspapers are quite as good. Weight the corners with small stones if the plants are very low; tall plants may be wrapped loosely and the top of the paper brought together with pins. Uncovered plants that look dangerously frosted may often be kept from being blackened by sprinkling them with cold water the next morning, before the sun has a chance to shine on them.

Another way, and a very pleasant one, to get the better of Jack Frost is to take up some of the plants while they are in bloom, or just before. Cosmos, and hardy chrysanthemums lend themselves to this purpose especially well. Dig the plants up with a good ball of earth and put in pots or tubs. The plants will be very decorative indoors, on the porch or set in the shrubbery or hardy border and placed under cover at night. Both plants have a long period of bloom. Cosmos plants may also be placed in a shed or barn, or the potting room of a greenhouse, and the blossoms used simply for cutting.

Take up in October, or before the ground freezes, such bulbs and tubers as would perish if left outdoors all winter. These include the dahlia, canna, gladiolus, *Galtonia candicans* and Madeira vine. It is a good plan to let them dry for a few days under cover. This gives the tops a chance to die down before they are cut off, while the clinging soil falls away readily. Then place the tubers and bulbs in a dry, dark cellar where they will be kept from freezing and yet not be warm enough to start premature growth. Cannas and dahlias may be set on a board, raised a little from the floor, and partially covered with the dry earth that has fallen away from them. Very choice varieties of these plants and all smaller tubers and bulbs would better be laid in a wooden box and covered with dry sand. The sand treatment may also be used for wintering a few of the tender herbaceous perennials like the red-hot poker plant (Tritoma).

Very often it is worth while saving some of the olants that were bedded out in the spring and have made a sturdy growth—these for future display purposes. The lemon verbena and lantana, perhaps, have developed into big shrubby plants and there are geraniums, both "fish" and fragrant, that have seen one winter in the house but are now grown beyond indoor convenience. Put all of these in large pots or wooden boxes, crowding the plants fairly close together. Keep them where they can dry off, by the gradual withholding of water, but where they will not freeze, until November and

then move them to a cool cellar for the winter. If the cellar is dark give a little water two or three times in the course of the winter; if it is light, and quite warm, the plants may be kept near a window and given more water—in which event there will be less dying down.

Plants that know no garden life save within the confines of pots or tubs, including *Hydrangea hortensis,* "marriage bell" (brugmansia), oleander, agapanthus and amaryllis, require the same treatment as to autumn drying off and wintering. When repotting is necessary, this is done in the spring.

There is also a dry system of storing plants. All the earth is shaken from the roots and the plant is suspended, head down, from the ceiling of a dark, cool cellar. This is the old-fashioned way of treating geraniums after serving a winter as window plants and it is sometimes recommended for the lemon verbena.

More often than not, autumn's weed troubles are passed on to spring. This is a mistake. The garden, on principle, ought to be put away for the winter clean. But there is another reason; weeds and grass that were so small in summer as to escape the eye may now be maturing seed and doing their level best to make mischief for another year. Root them up early. Some of these pests flourish bravely through the autumn, and the sooner they are checked the better. One of the worst offenders is chickweed. A late crop seems to spring from nowhere in August and, if

not rooted up, covers the ground in short order.

Pull up all stakes and temporary trellises just as soon as the need of them is over. Unless they are in too bad order for further use, shake off the dirt and put them away for the winter under cover.

The last thing to do in the garden before winter is to give the plants any needed protection. But this does not mean that the task is to be begun at the eleventh hour. Go about it gradually as nature does. Manure, straw, hay, cornstalks or any coarse litter—four to six inches deep—may be placed over plants that have disappeared entirely from view, provided that this is done after the ground freezes and the covering is all or partially removed when spring growth is discernible beneath it. The usual reliance, and there is nothing better, is leaves and the stalks of plants.

Gather the leaves after each heavy fall—lest many of them blow where they will be lost to you, and also to make the burden lighter. So far as can be done conveniently, rake the leaves toward the plants, using a leaf rake, and then toss them lightly over the plants with the implement. Otherwise carry the leaves in a basket or wheelbarrow to the spot and toss them by hand. In either case they will fall naturally—most of them settling sooner or later between the plants, where the next rain will pack them a bit.

Continue this process three or four times until all the available leaves are used. A good com-

bination is maple leaves, which fall early and soon curl up, and the apple and pear leaves, which drop to the ground late and keep firm all winter. Or, for shrubs, vines, roses and any large plants, the leaves may be left by the side of them in a pile or windrow and spread over the ground thickly after it has frozen.

With perennials the point to be borne in mind is that the majority of them endure the cold well enough; many of them, if left quite unprotected artificially, provided the cold is continuous. What they really need is to have the ground so covered that the danger of alternate thawing and freezing is minimized. So make sure, first of all, that the plants which remain above ground have protection around them—especially those that have distinct crowns; creeping plants protect themselves in a measure.

Put only a thin scattering of leaves on the crowns of plants with soft foliage that is more or less evergreen; manure will rot foxgloves, Canterbury bells, primulas and hollyhocks. Very light stalks may then be laid on to keep the leaves from blowing away. When such plants seem to need greater protection use more leaves and then with slats, resting on something just high enough to be clear of the plants, and cornstalks, or weighted straw, make a roof over them, closing it in on the north side. This roof prevents the snow from bearing down too heavily, and allows air circulation.

The weight of the snow itself would not harm

the plants, as it falls flake by flake and settles evenly. Snow is the winter blanket par excellence, if only it would stay put—which it will not do nowadays. Where there are many leaves on plants with soft foliage, however, the snow presses the dead and living so close together that there is rotting, which every thaw aggravates.

As the final operation, cut down all herbaceous stalks and lay them between the plants and over such as will bear the weight. These stalks are a little added protection and they serve to hold down the leaves. Cut the stalks with pruning shears quite close to the ground and be sure that the peonies and hardy chrysanthemums have some of their own; they are entitled to them. Light brush and small evergreen branches may also be used. With every stalk laid low, the beds and borders will have the neat appearance that is highly desirable even if it is not necessary.

Burn up in autumn any litter not suitable for either garden protection or the compost heap. There is always more or less lying around and there is no time like the present to rake it up and reduce it to ashes—which, after a bonfire, ought to be spread over tilled ground or shoveled up and placed around roses and shrubs. Do not burn any fallen leaves; if there are too many for the garden, use a portion of them for the compost heap and put the remainder, sprinkling with water each load when dumped, in a trench to form leaf mold for another year.

Coarse manure, laid around shrubs, roses and vines after the ground has frozen and worked into the soil in spring, is an excellent means of autumn fertilizing. For smaller plants use well rotted manure thoroughly mixed with a little soil, and put it on the ground before the leaves are spread. Tobacco stems, which are rich in potash, are a good autumn fertilizer for roses, peonies and other strong plants that have bare ground around them.

Chapter VIII

BORDERS FOR A SMALL PLACE

Flower beds, that exhaust the possibilities of geometrical design and then wander off into all manner of devious paths, are well enough in their place. They are necessary, within decent bounds, to the rigid formality of the partere. And there is a theory, which may or may not be tenable, on the part of park superintendents that such plantings, even when turned into living signs and like freaks, are one of a municipality's horticultural duties to the public.

Unless there is a parterre grouping, the home is better off without flower beds in the accepted sense. Stuck—there is no other word that fits—in the lawn they are always out of place and very frequently are nothing short of atrocious. Then, in their set gaudiness, they remind one of what Bacon said of lawn designs of colored earth: "You may see as good Sights, many times, in Tarts."

Flowers for the edge of the lawn, but the stretch of sward itself unbroken save by suitable planting of trees or shrubbery, or both, is a good rule that does not have to be qualified other than to admit

the inevitable exceptions that make the rule. There are instances, as in Hyde Park, London, of beds in the simplest geometrical forms being placed in the lawn near the edge of it with an effect really beautiful and not out of keeping with the general scheme; but all this is on a large scale. Again, islands of shrubbery, that are virtually converted into flower beds by a liberal planting of perennials or bedding plants, are to be seen.

For the small home grounds, above all, the border, or series of borders, is infinitely to be preferred in any but very exceptional circumstances. Borders adjust themselves to every line of a place, no matter with what irregularity it is marked; beds rarely do.

Then, too, borders are very much easier in the making, while in the upkeep the labor does not begin to be so much as with a bed that offers anything more serious than a right angle. The thought of laboriously cutting a crescent in the lawn, and then planting it, trimming it again and again and keeping the grass edge just right, that always there may be exact symmetry, is enough to drive such an idea out of one's head.

A border is technically a narrow flower bed—that is to say, one that is narrow in proportion to its width. Less precisely, but within proper usage, it is any bordering bed. Though usually much elongated, it would not be out of place to call a large square bed a border if it had a path on one or two sides of it. The simplest and commonest

"Then there is the border that defines one or two edges of the lawn on the sides that are not adjacent to the house or street"

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form is a long strip of even width, straight or curved, with either square or rounded corners. Very frequently the border is a triangle, generally obtuse-angled. Then there are various forms with all the edges irregular and others where one side is broken very much as a coast line is.

The more closely the border sticks to straight lines, the less work in the beginning and from that time on. The guiding idea, however, should be fitness; what is best for one place may be worst for another. As a rule the line of border along a path, road or boundary has at least the nearer line parallel to the latter; this is not necessarily automatic, as often there is the permissible very narrow strip of turf between. But the border may be parallel only a certain distance and then veer off at an angle at a point where a break in the lawn gives it an excuse for so doing, or where it is desirable to create a low screen.

Irregular borders would better have their edges broken by graceful curves when they come close to a path; they look better and the bit of intervening turf is more easily cared for. As to care, the same is true of shrubbery islands in a lawn scheme. If a border is to be cut up into capes and bays let it be a long one on the farther side of a lawn, where not so much the irregular edge as the admirable effect produced by it comes into the picture.

Width and length are governed by circumstances; some borders are from twelve to twenty feet wide and others are hundreds of feet long.

One of the most frequent errors is to make them too narrow—two feet or so in width. This does not seem narrow when the ground is prepared; but it is. Aside from the impossibility of obtaining scarcely more than a ribbon effect, there is scant room for the spread of the plants—which must be kept clear of the grass or walk, though some may hang over the latter if there is room enough. Four feet will be found a convenient minimum where there is access to the border from only a single side.

This for small plants, either in rows or massed in sections of broad and drift forms. Many of the large plants, as well as dwarf shrubs, can be massed in clumps in a four-foot border; or they can be placed in three rows if the plants in the center one are set opposite the space in the other two.

Borders on a small place, as may be observed by a study of cottage gardens, are exceedingly attractive when run along the foundation wall of the house, or the edge of the piazza. If the border turns a corner it will be all the more satisfying to the eye. Choose the south and east walls wherever possible, for the sun. If the shade is there, or only the west or north wall is available, you can always get around the difficulty by using shade-loving plants. Borders such as these need not come down to, or even near, a path if the latter is some distance from the wall. Lay out the border with reference to the line of the wall and let the outer edge of it be parallel or not, as circumstances warrant.

A border, preferably a double one along the path leading up to the entrance to the house, is another good leaf from the book of cottage gardens. This may be of equal width the entire distance, or agreeably varied by a distinct broadening at one or both ends—at the house end only if it does not extend to the gate, or sidewalk line. Again it may be varied by being made L—shaped on one or both sides, the arm being an extension along the house wall; widen the elbow a little to reduce the angularity at that point.

Or the front yard scheme may be extended to two rectangular borders, the remaining boundaries being as near the side limits of the home plot as seems practicable. Leave a break in the border near the house for entrance from the path. Where space is abundant and more flowers are desired, make the border a double one all around, or part way, by a continuance of the path within the grounds. Inside the rectangles have only lawn, with shrubs or small trees if there is room.

A border along the driveway is sometimes quite enough for a small place. One that comes to mind for its fitness uses up the entire space between the road and the boundary line. It is six feet wide until the road takes a turn inward; then it broadens and ends with a rounded effect. Another, that has the drawback of a brief season of bloom, is simply a four-foot strip of German irises that follows the several curves of a driveway its entire length.

Then there is the border that defines one or two

edges of the lawn on the sides that are not adjacent to the house or street. This is one of the best kinds of borders, since it is not only very beautiful as a nearer background but may be made to serve the purpose of a screen. If the flowers are largely here, and the borders by the house and front path are given over to shrubs, the foliage of which is of rather more importance than the blossoms, there is an advantage not so commonly apparent as might be.

For, with all the cottage garden charm of a house framed by flowers, or a front yard well nigh filled with them, something is lost when the borders are open to the full gaze of every passerby. The cottagers do not mind; for generations they have had no privacy and, ignorant even of what it means to the more sensitive, are happy in brief intervals of morning and evening garden intimacy that their long hours permit.

While the cottager has no other choice, it is a small place indeed that does not allow a second. This is the relegation of at least some of the borders to the rear of the house, or where they will provide a walk with a semblance of seclusion—if not the thing itself. To what lengths the relegation is to be carried is a matter for every individual to decide for himself, but that the extreme need not be too far in certain circumstances is clearly enough demonstrated by small places where the house and lawn are framed only by shrubbery borders, the flower borders being largely, or quite, out of the

picture as seen from the street. Not that blossoms are absent; some of the shrubs bloom and there is an interspersing of perennials and bulbs. The main note, however, is shrubbery—which is given a winter value by the employment of some evergreen shrubs and others with berries or gaily-colored twigs.

Run a border down from the back door—even when that happens to be the kitchen entrance. Make a path if none exists and extend the border to a flower garden, consisting of more borders or a parterre; or to the kitchen garden, the barn or the poultry yard. The walk thither will be the more pleasant for the border, in each case. Or run a border from the rear of the house down to the end of the lawn; then straight through the plowed ground to the farther edge of the plot, to divide the fruit garden from the vegetable garden, or all around a rectangle of vegetables—excluding corn and lima beans, unless the space is large. If there is no plowed ground the rectangle may be a grass plot for tennis—or merely for drying clothes of a Monday.

These back yard borders are all along the lines of least resistance—straight propositions. None of them offers any particular difficulty; in fact there is no easier kind of flower gardening. They may be long or short, wide or narrow, straight or curved, double or single; you consider yourself and your convenience here, not the judgment of the passerby.

Make a border that leads somewhere, a double one whenever you can do so. In the case of a very wide rectangular border that ends at a boundary line, arrive at a similar result by running a path nearly through it lengthwise. The peculiar advantages of the double border are the creation of delightful vistas and the greater enjoyment of a stroll where attention is not confined to one side.

A narrow strip of turf between a border and a path always has a refreshing look, but in the consideration of this it must be remembered that the care of it is no small item, looking through the year. The strip is not easy to mow and there are the edges to be cut, as well as the grass ends to be trimmed from time to time. Altogether it will be far less trouble to let the border come down to the walk. Even when the walk is of dirt, gravel, ground stone or ashes, it does not take much time to keep the line comparatively straight.

Borders are best managed when they are a matter of gradual growth. A good way is to begin at the house and make only one, or a section of it if it is to be very long, the first year. Add the other as time goes by. Then when the borders have to be made over, assuming that they are hardy, all the work will not come in one year. Again, delay allows time for the accumulation of experience in border-making and the propagation of stock that, perhaps, is beyond one's mean to buy in quantity. Nothing is lost and a great deal is gained by going slowly.

"For the small home grounds, the border, or series of borders, is infinitely to be preferred in any but exceptional circumstances"

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Aside from shrubs, which are in a class by themselves, perennials are the best for borders—for the simple reason that they do not have to be planted every year. Also they have a longer range of bloom that gives them an advantage over other herbaceous plants; and there is the widest variation of height, which is no small thing in the planning of effective borders. Very beautiful borders, however, are made of biennials or annuals alone—or of various bedding plants, including not only the ordinary ones that are left to die in autumn but large and choice specimens of greenhouse plants that are kept under glass in winter. There is no rule save the very primitive one of doing as you please.

What is known as a hardy border is not necessarily one composed of herbaceous perennials exclusively. These may or may not be all; perhaps there are a few shrubs and more often than not there are annuals, biennials and bedding plants scattered through. But the very pillars are herbaceous perennials.

No matter what class of plants is employed, it is a good plan never to use less than two kinds, these to be at their best at different times unless the period is a very protracted one. German iris backed by Michaelmas daisies is an example. Or, in annuals, Shirley poppies may be followed by China asters, letting an edging of sweet alyssum, which will outlive both, be regarded as the second flower. So few as three perennials will answer very well

indeed if they all have good foliage. Thus the *Arabis albida,* German iris and hardy chrysanthemum would give three separate periods of bloom and a continuous gray foliage effect in addition.

But the greater joy is in using a larger number of perennials to provide a long succession of dominant bloom, any other plants being fillers and therefore secondary.

CHAPTER IX

ACCUMULATING A GARDEN

THOSE whose wealth is a perpetual Aladdin's lamp have but to command a garden and it appears. Infancy and childhood are annihilated in its creation; like Aphrodite—goddess of gardens—rising from the sea, it is born mature.

That is a legitimate enough game for princes and potentates, whether royal, financial or industrial, and it is a custom honored by at least a few thousand years of observance. But, on the whole, it is just as well that not more are in a position to indulge in the game, or have hopes of ever being able to do so. For the truth is that a garden is a great deal like a library; you get infinitely more enjoyment out of it when you accumulate it than when you acquire it outright.

All of the gardens that mean most to their owners, the real home gardens, may be said to have been gathered together—just as a collection of books is. There is a small beginning, perhaps a very modest one indeed; the years add more plants and for them more places are made. With the years, too, comes the inevitable discarding of what-

ever has lost its usefulness or, it is discovered, never did have any to speak of.

This is not the spirit that goes in for numerical satisfaction; numbers, and size, too, are of secondary importance. It is the spirit that, little by little, room by room, equips a house with mellow old furniture having the air not so much of a collection as of being an inseparable part of the home.

How a garden may be accumulated can be no better illustrated than by telling just how one has thus been brought together. There came a day to an old place in the country when the last vestige of its golden garden age had disappeared. Not a link, unless it was the purple lilac on the west side of the house, bound the garden past with the present. Nor was there enough of the present to boast of—a narrow bed of spring bulbs on the east side of the house and on the western edge of the lawn a short row of "golden glow"; that was all that was worth mentioning.

More flowers were needed; at least as many as in days long gone by, the waning glory of which was well remembered. This was obvious one spring when winter scarcely had departed. Then came the thought: This is an old-fashioned house; why not an old-fashioned garden?

Very likely an impatient soul would have endeavored to make an old-fashioned garden all at once, had he not been a creature of circumstances; forced to do what he could, not what he wanted to. The which was a blessing, for circumstance taught

him a garden joy that otherwise he might be ignorant of even now.

The moment desire was known, neighbors offered of their garden treasures. So a start was made by going after these offerings in April. Including some shrubs, they were numerous enough to fill up the extended bulb bed and a new triangular, half-shaded border that had been dug where two paths met on the other side of the house. There was even enough, with gifts that followed in May, to fill a dozen or more short rows in an improvised border in the rear of the house; everything separable was divided, some plants making three or four. This bed, unconsciously rather than by intent, became a nursery.

Later, seed of a dozen kinds of perennials and biennials, one packet of each, was purchased. This was sown, in shallow boxes, on the very first day of August—strictly according to rule. There was a good stand, which was thinned out where too abundant, and in due time a great number of seedlings was transplanted, in a cleared end of the vegetable patch—the more delicate ones in a home-made coldframe and the remainder in rows by the side of it. When the time came for covering them up for the winter there was a lot of lusty plants, though smaller than the one most interested had hoped to have at that particular stage of the proceedings.

The end of the first season did not see much of a garden, to be sure; any one might protest with

reason that it was no garden at all. Yet it was very much of a garden to a dreamer of dreams, who naturally was not always over-careful to draw a distinct line between the substantial and the insubstantial.

Treasures, not a few of them choicer from association, had been brought together. If the idea was still lingering on the border of vagueness, there was a plain enough nucleus; and one the sounder because it was largely permanent. While the foundation was not laid, the first of the stones were on the spot.

But that did not begin to be all of the initial season's showing; else this tale would be less interesting, as well as shorter. There was the experience, that had been accumulating the while the garden grew from nothing into the hope, if not the present semblance, of something. The dreamer had known flowers from childhood—had pottered with them indoors and outdoors; but for the first time in his life he had been handling hardy plants, other than a few bulbs.

Already there was a feeling of conquest. The hardy garden had been sensed and a glittering of practical knowledge of its spring work, its summer work and its autumn work was indelibly impressed on the mind. Perennial and biennial were now fixed terms. Out of indefiniteness were beginning to come ideas as to succession of bloom in the garden, the use of blossoms and foliage in the way that the painter employs the pigments on his palette

and much else that concerns the pictorial side of gardening. And of many other things learned, or then well along in the learning, not the smallest was contentment with a modest beginning and with making haste slowly.

The second year unlearning began; as with gathering libraries, that is always incidental to the early stages of making a garden. One thing unlearned was the sowing of the seed of biennials and perennials on the first day of August—a rule again and again drummed into the ear of the would-be flower gardener. Only a few of the perennials bloomed and of the biennials not a Canterbury bell or a hollyhock and no more than one foxglove; the Iceland poppies alone were up to scratch. From that time on some one has planted biennial and perennial seed under glass in early May, if he counted upon getting bloom the following year.

To return to spring from this summer digression, the second April saw a long, and really serious, border under way. It was L-shaped and ran back from the street along the east side of the east lawn and then turned to border the south side—thus giving this part of the yard a background. Hybrid perpetual roses were planted nearly up to the turn, where a break was made with some larger Madame Plantier bushes; thence the border was continued as a hardy herbaceous one. What with the little nursery, the numerous seedlings and more generosity on the part of neigh-

bors, there was enough to give the new border a fair showing and also to turn the nursery into another border. Only a few plants besides the roses had to be purchased; but in the autumn bulb-buying for the new borders began, the planting being in little colonies.

So the garden grew. The third spring another border—in the rear of the west lawn, to define it. It was a big one, almost as wide as it was long—with a path nearly all the way down the middle; but it was not so big that there were not plants enough to give it a good start in life. Some purchases—they could now be made with wisdom—more gifts, another crop of seedlings and the natural increase obtained by separation, all helped. And as the garden grew, experience grew.

The fourth year brought a narrow herbaceous border paralleling the rose border and a very wide one behind the original herbaceous border, while the one that was first the nursery was extended to the other side of the path leading up to the rear door of the house and also along the east edge of it. A new nursery was started at one end of the kitchen garden. Now stock was increasing so rapidly that a great many plants were given away, more going out than coming in. Of those that came in, there was beginning to be a sprinkling of plants of association—picked up on travels and sent, or brought, home. And always accumulation of experience.

One more east border, the longest of all, another year; the addition of some small ones, making sixteen altogether, and experience piled upon experience—that is the rest of the story. Maybe it is not yet a garden that has been accumulated, but it illustrates a principle even if it is no more than an aggregation of loosely related hardy borders.

The cost? Not a great deal more than the labor of two hands in leisure hours. The small expense for purchased plants and seed was scarcely missed because of its distribution through the years, while the amount of money paid out for hired help was so slight as to be practically negligible. As the garden stands today, it would take hundreds of dollars to duplicate the plants, let alone the expense of planning and planting if these were done by a professional.

And the pleasure of it. In all of flower gardening there is nothing more charming than this gathering with the years and learning with the years. You never get to the end, of course. But who wants to? A garden is not made to be finished within the span of any one human life—unless, perchance, it is the decree of wealth that it shall be. It is something of cumulative growth—something that expands with its age and the age of the one whose hand has shaped and reshaped it and who always secretly hopes that when he is gone there shall be no cessation of expansion.

Chapter X

WHY A HARDY GARDEN IS BEST

Time was when most American flower gardens were hardy. That was still the rule in grandmother's day—the grandmother, say, of those who now are getting toward middle life.

Grandmother knew the intrinsic value of permanence in the garden; she loved plants that stayed by her, that endured with her the rigors of the winter and woke up smiling in the spring. And she knew full well that, with all else that she had to do from the rising of the sun until long past the going down thereof, such plants must be her main reliance because they represented the minimum of labor.

Came mother. She was rather inclined to stick up her nose at grandmother's garden. Like some of the fine old furniture, it was not quite good enough for the new day and generation. So many a beautiful garden that had been treasured for years by some one now gone to her last account perished from lack of care, and lack of thought, by a more or less slow process of petering out. They died hard, not a few of them; here and

"The hardy garden has come into its own again because it is the best of gardens"

Mail

there in New England villages root-bound daffodils, tulips, grape hyacinths and "johnny-go-to-beds" are still struggling through the grass to show where once was such a garden.

Mother took a fancy to red cannas, redder geraniums, and reddest salvia, for their gay color, and she had a notion that "foliage plants"—meaning coleus—and "elephants' ears" were as necessary to the family position as black walnut furniture and body brussels carpets. These plants kept up a brave show all summer, the while they gave a tropical air to dooryards that was not altogether becoming, to say the least.

Happily the third generation came to its senses. Today the tide is turning back and with a force such as to leave no doubt that the hardy garden is here to stay definitely. Old-fashioned flowers of permanence are being restored to places that knew them in the long ago and are basic figures in the establishment of numberless new ones.

The hardy garden has come into its own again because it is the best of gardens. It is best by reason of the very permanence that links it with the home, year in and year out, so closely that the child born within sound of it will remember it with infinite pleasure the rest of his life—even though time and circumstance eventually remove him far hence.

There is another reason, and a potent one. It is nature's way. She uses an abundance of annuals, that there may be no bare spots, and bi-

ennials; but trees, shrubs, herbaceous perennials and bulbs are the strength of her gardens. Hers are hardy gardens.

They are by far the most beautiful, the hardy gardens. Not that supremely beautiful gardens that are only of a summer's life may not be made, but the beauty is of a less satisfying kind. Observed once it enchants, for the lavish display of color cannot fail to impress; but when the July vision is like unto that of June, and August sees little or no change, the beauty is of the palling kind. Fancy living with a garden made up of such beds as are to be seen at Hampton Court in summer, for example—glorious as these masterpieces are for an ever-shifting public.

The beauty of the hardy garden owes much of its charm to the fact that it does not endure, save as a varied pageant. May's splendor is its own, and so with the other months. There is always beauty from April to November—often in winter as well; but so frequently does it change that at all seasons today's beauty scarcely can be called tomorrow's beauty. As in nature, picture follows picture.

Plants almost incredibly numerous and varied make this possible. Grandmother had relatively few to draw from; but now the world has been ransacked and the array is nothing short of bewildering. No matter what it is, any effect can be planned and carried out—and with the feeling that it will become the better with age.

Another point in favor of the hardy garden. There you see plants reach their full development, as nature intended them to be. From the first snowdrop to the last chrysanthemum, every plant pursues its natural course of life; you may observe it mature and immature. On the other hand, bedding plants, such as the geranium, heliotrope and lantana, come into the garden in their youth and are cut down by the frost before the end of it. They are bedding plants at best. When one thinks of the geranium in subtropical California, the heliotrope in the Alameda of Gibraltar and the lantana running wild in Bermuda, all in the greater glory that nature meant to give them, their incompleteness in our northern gardens seems really very pitiful.

Then there is the question of appropriateness, speaking more particularly of temperate climates. Hardy plants are natives of temperate zones, otherwise they would not be hardy. There is accordingly a certain fitness in their use. They seem to fall in with any landscape scheme and look as if they belonged there. A lily from Japan or a bleeding heart from China has the appearance of being at home in a Massachusetts garden, whereas Cuban palms or Arizona cacti, bedded out for the summer in pots, do not. This, of course, is going to extremes to institute a comparison. The idea is the fitness of hardy plants for the general note of home gardens of temperate zones.

Seldom is a hardy garden literally, that is to

say exclusively, hardy. Nor is there a valid reason why it should be—any more than there would be for the prohibition of flowers from a zoölogical garden. As a matter of fact, some of the finest hardy gardens have liberal plantings of annuals. To such a purpose most annuals lend themselves admirably, especially when planted in a naturalistic manner to double-crop the patches of ground given over to spring bulbs. That so many of them are natives of tropical or subtropical countries is no argument against them. Few appear out of place in a northern garden in which they are the secondary note. Perhaps they ought to, but they just do not.

The long season of the hardy garden is always a revelation to those who, by the use of only tender bedding plants, have been accustomed to think of the flower garden as having its annual beginning late in May and its end in September. If the proper thought be given to planting, the hardy garden, which is little affected by cold in either spring or autumn, will have no less than seven months—April to October inclusive—that are really good ones. There are forty or fifty reliable kinds of flowers that will bloom in April, and, if October has fewer at her command, the numerical deficiency is more than counterbalanced by the showier display.

But a hardy garden ought to give some enjoyment to the eye the year round, and will, even above a heavy winter blanket of snow, if only a

"They are by far the most beautiful, the hardy gardens"

Library

few of the advantages that evergreen shrubs and those with attractive twigs and berries offer are taken advantage of. There are winter days when, if the garden is not an altogether comfortable place to walk in, it may be a pleasant sight from the window.

A mistaken idea of the hardy garden is that it is the most expensive. This is true only of the initial expense, and not always then. If everything has to be purchased at the outset, the creation of a large hardy garden does mean considerable expense; but even then, the investment being a permanent one, the cost at the end of a decade or so may be less than the total amount that would have been laid out for the perishable material of ten consecutive summers.

There is the economy in labor also to think of. A well-made hardy garden can go for many years without complete replanting at any one time; some have gone a generation or more and shown no material deterioration. The changes, in other words, may be made by piecemeal and, if need be, at any convenient time, whereas if the foundation is not hardiness everything has to be done over each year.

It is labor saved in the end to spade the beds or borders fifteen or eighteen inches deep and work in a fair quantity of well-rotted manure. If the soil is really poor, take it out to at least the depth of three feet and fill up with entirely new and good soil. What with frequent stirring of the soil

and an annual top dressing of fine manure between the plants, the garden can be kept in good shape indefinitely. Sheep manure, which may be used sparingly for roses, is excellent for surface application and bone meal is worked into the soil with fine results. One of the best of commercial fertilizers for perennials is a mixture of bone, blood and potash; a peony will thank you for a handful of it in the spring.

No hardy garden is made in a day, always excepting the comparatively few products of carte blanche orders. Even when all laid out at once, the plantings call for a considerable amount of reshaping. Then again, some of the finest perennials refuse to be at their best for two or three years unless there is the unusual and extravagant expedient of making use of large clumps—which soon will have to be taken up and divided, as they are virtually ready for that when set out.

The sensible plan is to make the hardy garden a vision of three or four years hence and compromise with the springs, summers and autumns that come before. The plan in detail is this: Plant shrubs, roses, peonies and fraxinella far enough apart to allow for the maximum expansion. It is just as well, though less imperative, to follow the same rule with funkias, bleeding heart and *Lythrum superbum*. In the spaces between the plants grow little colonies of spring bulbs, to be followed by transplanted annuals, until the time comes when they are not needed; the bulbs can

remain for years with the peonies, as a great deal of ground is required for the spread of the latter's foliage.

In regard to other perennials, fill at first only one-third or one-half of the space laid out for a colony, setting the plants thickly enough together to cause one summer's estimated growth to seem at a little distance nearly to conceal the ground. Fill the remainder of the space with a good and appropriate annual, massed; let one or two of the plants wander over into the perennial colony, that the effect may appear less studied. As the perennial colony becomes crowded remove some of the plants and with them continue the filling of the space. Another way, but not quite so good, is to plant the perennials wide enough apart to allow for a few years' expansion and then fill in the spaces with annuals.

CHAPTER XI

THE SPECIAL VALUE OF PERENNIALS

ALL other plants might disappear and the perennials would give the garden supreme loveliness—expressed in hundreds upon hundreds of individual forms. No one knows how many kinds are in cultivation; if any calculation were made it would be good for only a day, so rapidly are species emerging from the realm of botany to the garden and new varieties appearing on the scene. A glance at a British list of iris, primula or campanula species alone is enough to stagger one.

The special value of perennials, however, lies not more in the marvelous variety of form and color that incalculable numerousness affords than in the distribution of their blooming season through the greater part of the year. Excluding all of the bulbs, which it is the trade custom to catalogue under a separate head, the herbaceous perennials have a range of bloom that has not begun to be realized by amateurs—as the meagre representation in the average garden, in both spring and autumn, demonstrates clearly enough. Without any coddling at all, they can be made to furnish

an uninterrupted stretch of bloom for approximately nine months of the year; a thin showing at both ends, it is true, but neither quantity nor variety is everything in the flower garden. With coddling, it is possible to extend this stretch through December, January and February and thus make a complete circle of the year.

Perennials as a class bloom only once a year. Most adhere to this rule with absolute rigidity; the exceptions usually are early spring flowers that a mild autumn causes to bloom sparsely a few months ahead of time or summer flowers that have a second spurt, often because the first crop of seed has not been allowed to mature. Nor is the average period of perfection of bloom long; sometimes it is lamentably brief and rarely is a perennial so prodigal as the plumy bleeding heart *(Dicentra formosa)*, which has blossoms from spring to autumn.

The actual time of bloom is fixed only so far as habitat—the place where the plant is native—is concerned. Even then the season, especially an early or late spring, will shift normality a little one way or the other. In gardens a similar inexactitude of time, but more of it, is to be noted. Comparatively few perennials are cultivated in regions where they grow naturally. Not infrequently there is a marked change of altitude; thus a primula native to the mountainous heights of Switzerland will bloom earlier in a New York garden, because in the latter the snow disappears earlier.

Again climate differences are such that garden normality is by no means the same everywhere in spring and early summer; the German iris is likely to be in full bloom in northern Virginia the last week in April while in southern New England it is not to be looked for until May.

In the matter of hardiness—the withstanding of the winter's cold without artificial protection—there is no fixed rule once a perennial leaves its habitat. Taken by and large, perennials are wonderfully adaptive in this respect, often enduring patiently more cold, or more heat, than at home, and quite as often giving no sign of minding at all a drop of a mile or more to about sea level. But with a fairly large number—these include, unfortunately, some of the most charming species—the degree of hardiness positively refuses to budge much to accommodate the grower of flowers. Such perennials must either have protection that amounts to coddling or, perhaps, be taken up every year and stored all winter where they will not freeze. They it is which are largely responsible for making certain features of hardy gardens of southern Britain the despair of northeastern America—where winters are colder and summers hotter and drier.

Where a plant's local hardiness has not been tested by cultivation it is a good plan to look it up in an authoritative reference book before deciding about planting. First, see how closely native and proposed conditions tally. Then, if the book

"The wonderful big notes are struck by solid effects such as are to be found in nature"

does not give the result of tests in the United States, ascertain whether the plant is catalogued by reputable American houses. The perennials that they offer are a very much abridged list as compared with British ones and generally they are either reliably hardy as far North as Boston, or relative tenderness is plainly indicated.

All of these things should be clearly understood before any definite attempt to grow perennials is made. Such understanding is absolutely essential for determining the special value of perennials not merely to the garden world but narrowed down to the province of your particular garden. What you want to know above all is the worth of perennials to you as working material.

This enables the choice from the embarrasingly large list to be made with the intelligence that prevents useless waste of time and money in the endeavor to do what is not worth while in an individual case.

For the great pleasure in growing perennials is to devote time and money to those that are distinctly worth while in one's own case. There is a host of them available after the most ruthless process of rejection that any one of a thousand circumstances would necessitate. The sacrifice will never be so great that the true philosopher will not be able to find solace in the garden of a differently situated neighbor or friend, or a public collection of plants.

In making a list of availables for final choice

take, say, one or two hundred small cards and from catalogues and garden books pick out the same number of plants of tested hardiness that seem best suited to the required purpose. Write at the top of each card both the botanical and the common name. Then add, on separate lines, the time of blooming, as nearly as you can ascertain for your section of the country, and its average duration, the height of foliage as well as bloom wherever possible; the general character of the plant, whether creeping, sprawling, bushy or markedly erect and, finally, the color. It is best thus to segregate the color memorandum, because this should include not only the color, or range of colors, of the blossoms, but like notes as to the foliage. Make a clear differentiation of the many foliage shades and if the leaves are evergreen say so. It is well also to keep in mind, as to color, that the matter of blossoms and leaves being loose or compact may make a material difference in their use for garden pictures.

Next, sort the cards according to season of bloom—going by the month or, better still, by fortnights; they cover better the average period of perfection. Lay the resultant packs of cards, chronologically, in a line on a table and see if there are any distinct breaks in the succession or any fortnights that do not admit of enough choice. Should these deficiencies exist, return to the catalogues and garden books for additional material, before proceeding.

The last step is to take up each little pile of cards by itself and either subdivide according to this or that feature of the memoranda or at once choose for the planting. The selected cards will then answer as notes from which to make the garden, or border, plan.

Even with this preliminary study, it would be far better for every one who is growing perennials for the first time to plant most species in rows like so many vegetables; this for a year or two. No matter how much one absorbs from books, it is only by watching a perennial grow a season or more that it is possible to sense its character in every particular, and if this is done in a little home nursery the acquired practical knowledge makes every definite step in the use of such plants as permanent garden material infinitely easier and more effective. No time is really lost and much working experience is gained.

A good reason for this preliminary planting is the difficulty of getting a clear idea of the foliage spread of a perennial without actual observation. The kinds are too numerous to permit of the spacing tables by which tulips, hyacinths, pansies and geraniums are set out; very few go into the ground excepting by what seems guesswork, but is really an acquired knack.

The foliage spread is important to know before planning a hardy border or garden, in order that enough and not too many plants may be acquired and set out—thus saving money at the

outset and time spent in replanting later.

Suppose, to get away from the abstract, half a dozen oriental poppies and as many plants of "baby's breath" *(Gypsophila paniculata)* are set out in a home nursery bed—in parallel rows, about fifteen inches apart and the plants nine inches apart in the rows. If the plants are of commercial size they may not seem too close together in the row the first year; but the second year they will look crowded and there will be every sign that thinning or complete replanting must be done earlier than ignorance had suspected would be the case at the time they were so very carefully set out at apparently wide spaces.

Possibly ignorance, had the planting been done in a garden, would have taken it for granted that no change would be necessary for years. The second season it is noticed that an oriental poppy is likely to have a spread two feet in diameter while the masses of "baby's breath" in the blooming season will perhaps be twice that distance across. Meanwhile this will have been discovered the first year and will be still plainer the second; the poppy blooms early in summer and soon the plant turns brown and dies down to the ground, the while the later-blooming "baby's breath" is spreading out toward it and gradually concealing its unsightliness. It is also seen that by the time the "baby's breath" is turning brown a couple of vines of *Thunbergia alata,* from seed that happened to fall there, are making their way over the

drying masses—because partly to hide the ugly is one of the special errands on which nature sends the five-foot climber.

By autumn another thing is noticed; the poppy has begun to make a considerable second growth of foliage and, lest this be too shaded, there is need of cutting away some of the branches of "baby's breath"—or else diverting them to one side. Obviously, the oriental poppy and "baby's breath" are one of those dovetailing perennial combinations to know which is among the secrets of successful hardy gardens and borders.

Here then is a whole lot, and not all at that, learned by the exercise of a litle patience in the study of plant character before attempting to bend that character to one's own use. And the observation of the plants was the easier because of their being in a row.

The only safe general rule for the planting of perennials is to allow a space of ground six inches square for each plant known to be of dwarf or fairly low habit and a space a foot square for the taller ones. This is a good rule. Unless the plants are seedlings or small cuttings—sometimes then—the ground will be nearly or quite concealed when the first summer is well along on its course. And there will be ample room for two, three or more season's growth—according to the plant's normal rate of increase and the way that this is helped or hindered by weather conditions.

Whether the plants are set out in rows or a

more or less naturalistic fashion, the rule in question need occasion no complete replanting for a long time. This is avoided by removing alternate plants, or one here and there, as the colony becomes crowded. In some instances the plants may be left in the same number, but the individual size reduced by cutting off portions with a trowel—which may be accomplished without lifting the plant from the ground. Peonies are an exception to the rule; they should be planted two feet or more apart, as they dislike frequent disturbance.

Perennials usually are planted for permanent effects, but there is a growing tendency to use some of those that bloom in the spring and very early in the summer as bedding plants. Seedlings or small plants raised from cuttings are bedded out in the autumn, after the summer flowers have come to the end of their tether, and the year following, directly the height of bloom is past, they are rooted out and either thrown into the compost heap or divided and placed in nursery rows. This is the plan of Belvoir Castle, where every spring there is a superb display of bedded-out perennials on a scale that may be imagined from the fact that the annual consumption of aubrietias alone is some seven thousand.

Such a temporary use of perennials within the limits of parterre formality and the set designs of park flower beds is quite common in England. The example is one that might well be emulated in the United States, where, aside from the most

Naturalistic arrangements take on a grace and beauty—a final touch of both—that is lacking in formality of set designs

Mag

familiar bulbs, it is rare to see any plants but pansies, English daisies, arabis and forget-me-not bedded out in spring. There is a long list to choose from, without touching the doubtful flower such as various kinds of ranunculus and anemone.

It is not an expensive form of gardening, if one has the time for the additional labor required. Seed of perennials does not cost a great deal and as soon as a stock is started, propagation by cuttings uses up no money and very little time.

When seed is purchased, secure the very best obtainable. This costs more, but is worth every bit of the difference. Americans are apt to imagine that they are paying a high price for seed when they exchange a dime for a packet and to regard a nickel as a sort of standard price. The English, on the other hand, think nothing of paying the equivalent of twenty-four, thirty-six and forty-eight cents a packet; they know what superior seed means and the choicest is never too good.

Seed is the best means of securing some of the perennials that are not in the American trade. Not only is the risk of importing plants done away with, but specimens born here are better fitted to stand the climate. One of the few American alpine gardens of importance has been thus stocked. Aside from this, the question of using seed depends a great deal on circumstances. It is the quickest way of getting a considerable quantity of larkspur, *Iris pseudo-acorus*, aubrietia, *Baptisia australis*, blackberry lily *(Pardanthus sinensis)*, oriental

poppy, *Amsonia Tabernaemontana,* the maiden pink *(Dianthus deltoides)* and some of the primulas, to name only a few perennials, while it is a very slow way to accumulate herbaceous peonies. The only thing to go by is a knowledge of habit, which varies greatly in the length of time required for germination as well as for the attainment of the capacity of blooming; it is often difficult to get the seed of trollius and *Gentiana acaulis* to germinate until its second spring underground.

Creeping and prostrate plants commonly send out a large number of shoots that root readily and, indeed, often strike root before being attached. All of the spring-blooming phloxes, arabis, doronicum, *Polemonium reptans,* the ajugas, the veronicas and the stonecrops are readily propagated in this wise. Others, like the primulas and dropwort, cannot be grown from cuttings; they form crowns that are easily pulled apart. Cuttings may be taken of *Phlox paniculata,* and it grows quickly from seed, but for ordinary purposes the best plan is to separate the roots. Large clumps may be safely cut with the edge of a spade and the same is true of *Tradescantia virginica,* the funkias, hermerocallis, Siberian and Japanese iris and all perennials that form a mass of roots so closely bound together that division by hand is out of the question.

There need be no fear of taking cuttings, within reasonable bounds, or of much subdividing; both are good for perennials, which, it must not be forgotten, occasionally thrive more luxuriantly in the

garden than in their native haunts. Separate every few years; or every year, if conditions seem to warrant it. This for the majority of perennials; divide peonies every seventh year and let fraxinella and the everlasting pea alone indefinitely unless a transfer is absolutely necessary.

It is a custom, but one altogether too infrequent, to plant some of the perennials—generally grown from seed—in pots. This seems to be the only way to get perfection out of the chimney bellflower *(Campanula pyramidalis)*. In pots the spikes of blue or white blossoms will shoot up five or six feet and there is nothing more beautiful for an early summer decorative change in the conservatory or for a porch or hall plant. All of the hardy primulas, but more particularly the English, Cashmere and Siebold primroses, the giant cowslip, the polyanthus and the border auricula, are remarkably handsome little pot plants for March and April indoors. The choicer pyrethrums, trollius, *Phlox divaricata* and many of the alpines are quite as handsome in their way. All of the plants may be set out in the garden after blooming, though the chimney bellflower is generally treated as a biennial and thrown away after blooming.

There are two more uses for potted perennials. One is to keep a reserve store for filling gaps in the garden and the other is to solve the problem of those perennials, including some bulbous and tuberous plants, that are unreliably hardy if at all.

Among the latter are several of the loveliest windflowers—*Anemone sylvestris, A. blanda, A. St. Brigid* and *A. fulgens;* the turban and Lebanon ranunculus and *Rehmannia angulata.* These, as well as the various hellebores known as Christmas and Lent roses—which, if they survive the winter in the open, do not always bloom satisfactorily in December, January and March—may be grown in pots sunk in ashes in a tight coldframe or kept cool indoors until brought out to bloom.

Some perennials hold strictly to species. Others have a perplexing number of varieties, the peony, *Phlox paniculata, pyrethrum* and larkspur running up into hundreds, and the original type may be lost altogether in cultivation. Where there is a choice of varieties, seek out the best. There is the greatest difference in the world, as to both size and color of bloom, between the best of the peonies, phloxes, pyrethrums and larkspurs and those that are neither bad nor yet very good. And of the best select not many kinds; a dozen plants each of the lovely new double pale pink pyrethrum Queen Mary and as many more of that admirable double white, Carl Vogt, make a much finer showing than a mixture of two each of twelve varieties.

So, too, a massing of the Festiva Maxima peony or the old-fashioned red "piny" is better than the same number of plants in varied assortment, while *Phlox paniculata* loses half its effectiveness when there is not a generous grouping of one kind.

Not only be chary of varieties in the hardy garden and borders, but use the same restraint as to the multiplication of species. The wonderful big notes are struck by solid effects such as are to be found in nature. Bring your stock of *Phlox divaricata*—the type color—or *Alyssum saxatile* up to one hundred plants, which is easily done in a few years. Set them out in a long, narrow drift of each and the point will be plainly apparent. This course does not call for the slighting of other desired perennials; they can be grouped as fillers, or used in the reserve garden and odd spots on the place. Often space by the south or east wall of a barn may be used for colonizing perennials not required for the garden. They make a fine show there because of the isolation and are always handy for cutting.

Perennials are the cheapest of all plant investments, everything considered. Most of them increase so rapidly that in a few years the result makes the money laid out seem ridiculously small. A large number of the commonest kinds may be had at fifteen cents each—less by the dozen or hundred. Novelties and rarities are seldom more than half a dollar in this country. In England all kinds of high prices are paid willingly; some of the 1912 novelties were $24 each.

Chapter XII

THE BEST USES OF ANNUALS

Best of all the uses of annuals is the most natural one—the employment of them to fill any spaces that hardy plants leave in the garden. Then, if the planting be naturalistic, the flower colony looks as though it had sprung up spontaneously.

No one can be said really to know annuals who has not seen them in such plantings. Barring a few of the very stiff ones, they take on a grace and beauty—a final touch of both—that is lacking in the formality of set designs. It is the difference between the irregularity of a dazzling patch of corn poppies in an English field and a circle, square or triangle of the same flowers cut out of a patch and removed where there is no more of the kind.

Annuals thus employed are invaluable to the hardy garden and borders. Even in the best regulated families, hardy plants cannot always be made to cover every inch of the ground unless they have evergreen foliage—then there may be perishing just the same. Spring bulbs die down after blooming, the early lilies soon turn brown—as do bleed-

ing heart, oriental poppies and some other perennials. Not a year but there are bare spots that nature will strive to fill with weeds rather than have them bare. Here annuals are welcomed.

But it would be doing annuals scant justice to leave them to hazards of this sort. Paradoxical though it sounds, it is an unideal hardy garden that does not provide in the layout for one or more colonies of annuals. Without them there is, somehow, a sense of incompleteness.

The greater the departure from the conventional the more objection there is to using double flowers. The objection is highly elastic; nine times out of ten it need not bar the showy double forms of the China aster, clarkia, zinnia, stock, poppy and African marigold. The chances are, however, that where thought is given to the matter the peculiar advantages of single forms for drifts and other naturalistic plantings will be apparent; single China asters and poppies look natural, double ones do not.

Besides those mentioned, some of the best annuals for unconventional massing are larkspur, *Arctotis grandis,* godetia, lupine, Drummond's phlox, schizanthus, candytuft, leptosyne, nigella, cornflower, eschscholtzia, cosmos, petunia, nemophila, *Saponaria vaccaria,* phacelia, scabiosa, chrysanthemum, spreading lobelia *(L. speciosa),* nemesia, *Gyphsophila elegans,* nicotiana, viscaria, *Brachycome iberidifolia,* portulaca, coreopsis, alonsoa, *Dimorphotheca aurantiaca,* leptosiphon, petunia,

sweet sultan and *Lavatera rosea* and several others.

Where there is a choice of color, as in the case of the larkspur and phlox, make it the general rule to plant only one tone in a colony. If the latter is very large and two colors are desired, mass each; but divide the space unequally between them and make the line of division very irregular.

One of the saddest mistakes made with annuals is to plant them in mixtures. Some flowers, poppies, for instance, never shock you grievously when all colors are thrown together; but zinnias, China asters and Drummund's phlox, among others, do with a vengeance. While between these extremes are instances where a mixture may be suffered, no annual can be seen in perfection unless the varieties of the species are segregated. Treated this way some of the shades of the zinnia and China aster that seem unbearable when in close contact with others take on genuine beauty. The sweet sultan, scabiosa, portulaca, nemesia, petunia and Drummond's phlox likewise show a vast improvement when the colors are separated.

Beware of "art" and strange shades, unless the scheme is one that needs just such tones; they are beautiful when rightly applied, but not easy to apply. The large mauve blossoms of *Martynia elegans* are difficult picture material; so are the gold-veined blossoms of salpiglossis. And there are certain shades of scabiosa and sweet sultan that it were better to discard than to use without proper thought.

"Best of all the uses of annuals is the most natural one—the employment of them to fill any spaces that hardy plants leave in the garden"

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Before deciding on annuals for temporary colonies in the hardy garden and borders, get a comprehensive idea of the height and spread of the plant; frequently a seed catalogue will give the one in print and the other in picture. Thus cosmos is very tall and therefore, for the background, save when used near a border edge to break a vista, though its height may be reduced by the somewhat reprehensible practice of pinning down the plant and letting the side shoots grow perpendicularly. Low annuals, like *Brachycome iberidifolia* and godetia, are for the immediate foreground or very open spaces between perennials that are farther to the rear.

In the placing of annuals among perennials a point always to be considered is the freedom with which they self-sow and thus become a nuisance unless watched very closely. The cornflower, larkspur, coreopsis and *Silene armeria* are as much of a pest as weeds if left entirely to their own way of thinking what their share in the population of the garden ought to be. These should have the blossoms, as they fade, snipped off with scissors —not a burdensome task if the planting is not an uncommonly large one and the work is done daily.

Where the planting of a hardy garden or border is delayed to afford time for accumulating a stock of perennials in the home nursery, annuals may serve two excellent purposes at once. Get the ground in readiness for its eventual use and then devote it to annuals entirely for one, two or three

years—as circumstances necessitate, or warrant. Whether the hardy scheme be formal or informal, a vast amount of experience in the effect of massing blossoms and foliage, the combination of colors and the meaning of skylines and vistas is to be had in this way.

You want to know, perhaps, how small tapering evergreens would define certain garden formality, or would look in an irregular grouping. Experiment with the annual that is well named summer cypress *(Kochia trichophylla)*. The color is light green, changing to a reddish tint in autumn, but with the needed form there the imagination can do the rest. Or you want to get the effect of low shrubs; use the bushy four-o'clock, which is a better annual (really a non-hardy perennial) than it is credited with being if any of the self-colored varieties is used by itself. Put to a practical test the color value of sheets of low bloom by planting the blood-red Drummond's phlox or the orange eschscholtzia, the value of irregular spikes with larkspur, of rayed blossoms with *Brachycome iberidifolia,* of blossoms thrown up on long stems with sweet sultan, of scattered bloom with cosmos, of clouds of tiny blossoms with schizanthus and of pastel shades with scabiosa. Work out formal effects with such annuals as the China aster, candytuft, stock, godetia, alonsoa, tall and dwarf zinnia, chrysanthemum, lupine and French and African marigold—any that are not of sprawling growth. With a little study it will not be

a difficult task to find comparative material.

A garden all of annuals is also a desirable expedient when a place is rented for a season. Perennials, of course, can be set out temporarily and removed with the rest of the household belongings—this is done every year—but the plan is not always practical. Most would prefer to plant annuals and leave the problem of garden permanence to the next comer. Again this kind of a garden is a welcome alternative when a new place is in its first season and there is either not the time for permanent planting or else a definite scheme is left to future decision.

Then there is the country home that is occupied only from late June to early September. The garden could still be hardy, out of the abundance of summer-blooming perennials, if there is any one to give it the necessary spring and autumn care; but annuals, and bedding plants treated as such, are sometimes to be preferred for one reason or another.

Whether it is well to possess a garden of annuals simply to have it all annuals is something that no one can decide for another. Without question, it may be a garden of superlative beauty; on the Riviera are great borders that prove this—borders composed of drifts and other irregular sections of some of the most strikingly effective annuals, the arrangement being as careful as if permanent material were employed. Like proof was offered at the international flower show of 1911

in London, where there were groupings of annuals that could not be surpassed with perennials.

The disadvantage of a garden of annuals is not any limitation of esthetic potentiality; it is its impermanence, necessitating complete making over and repetition of expense every year, and a minimum season. The last is the great, and unconquerable, disadvantage; July is at hand before much bloom can be counted on and of the few species available after the middle of September not all can stand frost without protection. There are two kinds of annuals, hardy and half hardy. The latter are too tender to put plants in the ground until near the end of May, so that getting them started under glass does not help the matter of May bloom. Hardy annuals are so by comparison with the other class, not in the sense that most of the cultivated perennials are. The few that are really hardy, surviving through late seedlings of the previous year, hurry their blooming very little.

In the circumstances why not let the garden of annuals belie its name, just as the hardy garden does without compunction whenever it chooses? Lavish annuals on it in any measure for summer glory, only do not leave the garden bare before and after. This is easily got around by pardonable inconsistency. In October plant the garden with tulips, hyacinths and other spring bulbs. Edge formal beds or borders with hardy candytuft, for a permanent thing; with pansies, *Bellis perennis,*

Myosotis dissitiflora or *Arabis albida* for spring bloom or with violas (tufted pansies) for summer flowers. All of these plants can be set out in October and with the exception of the candytuft any of them are suitable for places between the bulbs, which they follow immediately in bloom when the period is not coincident; the arabis and myosotis are especially good with early tulips, or late ones if care is taken as to the color that goes with the myosotis.

Late in May, when the bulb foliage is turning brown, remove any other plants that are not used for edging and set annuals in all the available spaces. Or the bulbs may be taken up, dried off and reset in the autumn. If this is done throughout, or here and there, the garden may be given a riot of autumn color by massings of hardy chrysanthemums. It is not necessary that the chrysanthemums should be potted ones; they may be plants from cuttings rooted in the spring and grown on in rows, as they will bear moving even when in bloom.

Start the annuals, other than poppies, eschscholtzia and sweet alyssum, early by sowing seed in a coldframe soon after the first of May. Keep the plants under glass until the end of the month, or later if the garden is not ready for them. Do not let them get spindling; this is the objection to starting the seeds in the house in boxes in April. If started still earlier in a greenhouse, in March, they can be potted and put in the garden as good-

sized plants; but they will reach up for the light and are apt to go outdoors in a weakened condition.

Annuals that are a long time reaching maturity—such as helichrysum, the finest of all the everlastings, and the old type of cosmos—ought never to be sown in the open ground. The fascinating salpiglossis, also, is sown early under glass to insure bloom. Then there is the sweet sultan, which likes to get an early start so that it may give of its best before the heat of midsummer.

An effective way of using annuals is as pot plants—not only to fill spaces in the greenhouse but for the porch in summer, and for setting among shrubbery or in garden blanks. A great deal of this is done in England, where some potted annuals are superb specimen plants that cause eyes not familiar with them to open wide with wonder. Think of bushes of *Clarkia elegans,* a yard high and through, that are a mass of double pink or salmon blossoms! These are May possibilities if the seed is sown indoors in September and the plants potted and pinched back to promote bushiness. Cosmos, for autumn; rhodanthe, one of the everlastings; the common double balsam, nemesia, schizanthus, cockscomb and *Dimorphotheca auriantiaca,* the last of which has handsome hybrids now, are among other suitable annuals for pots. The balsam, nemesia and schizanthus, like clarkia, develop better in pots than in the garden.

One of the biennials, the Canterbury bell, is as

fine a subject for pot culture as heart could desire. This and other biennials, among them the foxglove, hollyhock and *Myosotis dissitiflora,* are usually thrown in with the annuals as they are regarded as plants of only a year so far as garden usefulness is concerned. Often they spend scarcely more time in the garden than is necessary for blooming, after which they are discarded. The same with sweet-william and columbine, though both of these will persist several years if conditions are favorable.

Of the number of annuals in cultivation few have any idea. Name a dozen or so and the list that the average person can think of offhand is exhausted. The common annuals are such because of a worth that time has shown, but they do not begin to be all that ought to be common. Nor do they begin to be all the easy ones—if any annuals can be called really difficult.

The salpiglosis is one that deserves to be better known; it is very good for massing if the colors are not mixed, but this plant affords the keenest pleasure when it is in less crowded garden conditions or when the blossoms are in a vase. Unappreciated, too, are schizanthus, with its myriads of little butterflies; nemesia, than which no low annual is more charming and which shows blue as well as red, yellow, pink and white, and phacelia, especially *P. campanularia,* with its blue bellflowers.

Then there are three rayed annuals that are

badly neglected. The Swan river daisy *(Brachycome iberidifolia)*, from Australia, is among the daintiest of carpeting annuals. The type is light blue, but there are white and pink varieties. Of the others the African daisy *(Arctotis grandis)* is unusual in that the white blossoms have a mauve centre, while the foliage is very downy, and the Namaqualand daisy *(Dimorphotheca aurantiaca)* furnishes rich yellow bloom. This trio is good for all summer.

CHAPTER XIII

SHRUBS IN THE FLOWER GARDEN

MOST of the old-time flower gardens of the northeastern part of the United States had at least a shrub or two—with others so near as to give them an air of relationship. Flowers were flowers in those days; little time was spent in botanical differentiation of the source.

One such garden scarcely would be discoverable today were it not for the surviving shrubs. Turf-grown paths, with but a ragged remnant of the box that once lined them, are arched with great bush honeysuckles; a double yellow "wallflower" struggles for bare existence in the shade of a rank old "syringa," cinnamon roses run wild and a flowering almond is a mere ghost of its former glory. What few perennials remain are straggling remnants of hardy races that even neglect finds it difficult to kill.

The old idea is every whit as good today. Why look upon shrubs, or trees, as something quite separable from the garden? If only as a background, some of them almost always come into the picture anyway; when shut out of a

planting by a circumscribing wall, they are rarely lost altogether from view. No matter how plainly defined, what it is so pleasant to call the garden is no more all the garden, in the broadest sense, than the section of a city that is built up solid is all of that city. As the city rambles suburbanward, so the garden spreads and spreads, until the ends thereof are the boundaries of the home site. Shrubs are not the only factors in this garden extension, but the flowering ones are the dominant denotive figures. A shrub in the garden, or by the side of it, a few more near the house and a small border of them in one corner of the grounds—there you have the simplest sort of a garden chain; yet one binding together the parts of a small place. Shrubs, in short, are prime material for the making of the piers of the imaginary garden bridges that every place, whether large or small, needs.

A great English estate, such as Witley Court, the main portion of which stretches out into ten thousand acres, shows how little size has to do with the expression of the thought. May is two-thirds over and the garden of gardens, that the stately mansion looks out upon, is aglow with rhododendrons. But in every direction flowering shrubs are beckoning, as if to remind you that there is more to the garden than that. Whichever way you turn there are links with the garden; some of them bind it to other gardens, and then away again. In one direction you are soon in the woods, but along the broad shaded path are

"Combine a May tulip with a perennial rather than with another variety, so as to secure marked form as well as color contrast"

more rhododendrons with other shrubs, and you can see that only a little while ago there had been myriads of bluebells and primroses to perform a like office in a more lowly fashion.

Shrubs are of special value in the hardy garden because of their height, which varies the skyline agreeably and at the same time gives permanence to some of its aspects. In April, when nothing herbaceous, barring possibly the crown imperial, has dared as yet to raise its blossoms far from the ground, a single forsythia will fairly illumine the garden because it is a flowering shrub standing out boldly against the sky. Then in winter the bare branches of shrubs, above a deadly monotonous level, are a grateful break if they are only brown; more so when they are red, green, yellow or gray, and still more so when bright fruit or evergreen foliage lingers on them.

In the garden proper these are more important considerations than mere wealth of bloom for late spring and early summer, when no end of perennials can be depended upon for flower color. Shrub bloom really grows in importance as it recedes from the garden, unless the latter is given over entirely to this class of plants, which is seldom the case.

Put but one evergreen shrub in the garden, regardless of whether it blooms, and it is immediately seen that here is an indispensable note. Spring, summer, autumn and winter this note is indispensable. In a formal garden that is not

large enough to use evergreen conifers, it is best expressed by box and ilex; though conifers of very small size may be allowed with equal propriety to pass as shrubs. Box is the most beautiful edging and normally is very hardy. As shrubs go, it is expensive; but with five-inch edging at three dollars a hundred and five dollars for fine single specimens about four feet high, the price is not prohibitive. Both the English holly *(Ilex aquifolia,* var. *Hodginsii)* and the American holly *(I. opaca)* may be had in four-foot specimens for about half the price. Clipped California privet of the same size costs five dollars or so for a pyramid or globe; the shrub itself is cheap, but the training has to be paid for.

For less formal or wholly unconventional effects there are more than a dozen evergreen shrubs whose worth in the garden itself does not begin to be appreciated. Foremost among them, because superb bloom is added to strongly effective foliage, are certain rhododendrons and the mountain laurel *(Kalmia latifolia).* These have thrived in a full exposure; but if the garden has no shaded spot, they are safer when planted where the sun does not beat down on them relentlessly in summer and the force of the winter's winds is broken by protecting trees and shrubs on the North. Moreover, such a situation, perhaps on the edge of the garden, best becomes them. Both require soil made fibrous by peat or leaf mold; also a heavy winter mulch of leaves, to be left on as a

means of helping to keep the ground moist in summer.

If good stock—fully acclimatized, should it have been imported—is purchased, neither shrub is so difficult as it seems to most who lose them in culture. Generally the losses are due to a lack of common sense. The two big American rhododendrons, *R. Catawbiense and R. maximum,* the latter the last of all to bloom, are not excelled by any of the hybrids for massing. They are also hardier. The Catawbiense has rose shades while the maximum ranges from pale pink to white. Of the hybrids some of the finest are hardy in England but will not bear the winters here; the tender ones include the majority of those known as red. In choosing hybrids therefore reject all but the named varieties of well-tested hardiness; there are enough reliable ones. Two-foot rhododendrons and laurel cost about two dollars each.

For low evergreen growth, semi-formal or naturalistic, there are several good shrubs. The showiest is *Azalea amoena,* which is ablaze with little solferino blossoms in May and in autumn has bronzed foliage. Keep the blossoms away from everything not green or white; the color is the fighting kind. Three kinds of cotoneaster, all with gay berries through the winter; as many of the andromedas; *Crataegus pyracantha,* which has brilliant orange berries; *Phyllyrea decora, Rhododendron ferrugineum, Rhododendron hirsutum, Euonymus japonicus* and the lovely little garland

flower *(Daphne cneorum)* are others. The garland flower is so low that it drops conveniently into lists of perennials supposed to be herbaceous. Though little known, it is among the choicest of hardy garden plants. The clustered pink blossoms—coming in May and again, more sparsely, at the end of summer—are deliciously fragrant.

For holly-like effects without regularity there are the American and Japanese mahonias, both with early yellow blossoms, and *Osmanthus aquifolium,* which is quite dwarf.

Although evergreen shrubs bloom, it is the deciduous ones that, for convenience, are called flowering shrubs. Here the riches are so embarrassing that only parks and vast estates can hope to sound very deep the joys of possession. One catalogue lists no less than eighty-eight hardy species and these are sub-divided into nearly four hundred varieties. Eighty-eight species; yet how many can be called at all common in dooryards? The lilac, snowball, Japan quince, weigela, *Philadelphus coronarius,* deutzia, *Spiraea Van Houttei, Hydrangea paniculata,* forsythia, althea and bush honeysuckle—less than a dozen. No fault is to be found with these eleven shrubs, they will always be among the best; but there are others that deserve to be just as familiar.

Nor is this all of the pity. There is much ignorance of the fact that the commonest kinds have not been standing still; new species and new hybrids have been coming along. Once all you

had to know about a lilac was that it was either white or purple; nowadays there are double and single ones, with enormous trusses and such fancy names as Comte Horace de Choiseul and Souvenir de Louis Spaeth. White has cream and yellowish shades, while purple is varied by hues styled red, blue, lavender, lilac and violet. Lilacs, too, may be Hungarian, Persian or Rouen and—you must not say lilac but syringa. Once upon a time syringa meant the white flower which is called mock orange in its larger form. Now you have to say philadelphus for mock orange, and there are double and single named kinds. Snowball is viburnum; if you know a dozen species you are not through with the cultivated list. The old pink and white weigelas have a host of variants, altheas go by name instead of color, spirea and hydrangea species have multiplied and you are obliged to explain sometimes which one of four forsythias you mean.

So, before ordering even these familiar flowering shrubs, study the catalogue for a line on the improvements and variations of the type; better still, visit a nursery in the blooming season. Study, in particular, the new lilacs, altheas, weigelas and deutzias, the unfamiliar viburnum, spirea and hydrangea species, the variety of bush honeysuckles and the double mock orange. The althea, or rose of Sharon, which is being developed largely in the double forms, ought to be on every place, as it blooms later than most shrubs.

Of shrubs that are not so common, there is an altogether too scant showing of deciduous azaleas, magnolias and flowering crabs *(Malus)* in the hardy garden. Named varieties of *Azalea mollis* are strikingly fine for early yellow, red and rose effects, as the bloom precedes the foliage. This azalea will do well in the open, but it and the gorgeous flame azalea *(A. calendulacea)* are the better for being treated as undergrowth in partial shade. A dozen two-foot plants of either sells for about seven dollars and a half. Magnolias occasionally are winter-killed even after standing for so many years that they have become trees of considerable size; but often a single season's bloom is worth the cost. The dwarf species (*M. stellata*), which costs two dollars and a half for the three-foot size, is a beautiful garden shrub, especially when it blooms by the side of forsythia. The creamy Chinese magnolia *(M. conspicua)* and the purplish Japan species *(M. atropurpurea)* are best suited for the edge of the garden unless the layout is an extensive one. The flowering crabs are really small trees. The Siberian crab *(Malus baccata)* is a good choice; so are the double *M. spectabilis alba fl. pl. and the* dwarf *M. Toringo*. Four-foot trees are under a dollar in price.

The amygdaline, or almond, group offers, in its way, quite as much beauty. The double pink and white almonds *(Amygdalus chinensis)* are charming shrubs that are grossly neglected nowadays. These are very hardy. The double pink and white

peaches perish more easily, but, like the magnolias, they give in a short life the worth of the money spent. The blood-leaved peach has excellent dark foliage. Another shrub in this group, *A. sibirica,* begins to bloom in late March or early April.

Small trees of laburnum *(Cytisus),* which need a little shelter; dogwood *(Cornus florida),* both the white and the rare pink; the Japan Judas tree *(Cercis japonica),* silver bell *(Halesia tetraptera),* witch hazel *(Hamamelis japonica),* cornelian cherry *(Cornus mascula),* double English hawthorn *(Crataegus oxyacantha)* and white fringe *(Chionanthus virginia)* all make good garden shrubs. Those that grow large develop slowly; but none of them should be planted without due allowance for future expansion, as transplanting is not so easy as with shrubs proper.

What used to be called wallflower *(Kerria japonica)* in the old double form has a great deal of garden effectiveness in the species; the single yellow blossoms have a long season and the green branches are handsome. The white kerria *(Rhodotypos kerrioides)* is quite as good and it has black berries that last all winter. Other fine white-flowered shrubs, yet rarely seen, are the pearl bush *(Exochorda grandiflora)* and the dwarf Juneberry (*Amelanchier botryapium*).

One of the unfortunate things about shrubs in the North is the lack of true blue, violet and purple shades in the bloom. There are enough shrubs to supply it, but these colors do not seem to go with

the ability to stand severe cold. The Chinese and Japanese buddleias, which are fairly hardy in the North when planted in a sheltered location, are in this class. The false indigo *(Amorpha fruticosa)* and the blue spirea (*Caryopteris mastacanthus*) have the same relative hardiness. The beautiful blue hybrids of ceanothus are less to be relied upon above the latitude of Washington, though Gloire de Versailles has pulled through the winter near New York. This is a fine variety to contrast with the hardy native New Jersey tea *(Ceanothus americanus)*, which has white flowers.

Several shrubs with pea-shaped bloom are useful for secondary effects. Pink, purplish and white blossoms are furnished by four species of tick trefoil *(Desmodium)*. These bloom late and their growth is such that they may be placed in any herbaceous border. The bladder senna *(Colutea arborescens)* will add yellow tinged with red and there are some fine new forms of broom—sometimes listed now under cytisus instead of genista. The Schipka cytisus *(C. Schipkaensis)*, with whitish blossoms, is quite hardy.

The dwarf barberries are worthy of a place in the garden for three good reasons—blossoms, foliage and fruit. The common European barberry *(Berberis vulgaris)*, either the type or the kind with purple foliage, ought to be grown more on the garden's edge than it is; in autumn, especially, it is splendidly effective. Then there are the beautiful species of elder *(Sambucus)*, of sumac *(Rhus)*

and currant *(Ribes)*, in themselves sufficient to make a garden of great variety; the several tamarisks, some of which are great improvements on the old; the French mulberry *(Callicarpa)*, which has an abundance of showy fruit, as well as graceful growth; one or two good aralias, the old-fashioned, sweet-scented shrub *(Calycanthus)* and half a dozen worth-while St. John's worts (*Hypericum*). Privet, notably the new Japanese *Ligustrum Ibota*, has fine white bloom, but the odor is rather strong for the garden.

Roses creep into the shrub category of convenience, just as some of the trees do. The standard, or tree, roses are serviceable only for formal layouts and without professional care they are apt to be more bother than they are worth. The best roses to consider as shrubs are those that make big bushes, such as the old-fashioned damask and Madame Plantier. Then there is the sweet brier; nothing is fairer than the type, but the Lord Penzance hybrids offer darker pink and ecru tones. Coarser single blossoms and foliage are provided by the ramanas rose *(Rosa rugosa)*, which has semi-double forms now. Harison's yellow and *Rosa multiflora japonica*, the latter for massing in loose effect, are two more of the many good bush roses.

There can be no rule as to what extent shrubs shall figure in hardy gardens and borders. The only thing to do is to count them as available material of permanence—like the perennials, only not herbaceous—and work with them to the

best advantage. They are very serviceable in small gardens to raise the height of the center or rear of a bed or border, to define entrances and to multiply vistas by blocking a view. In long borders they may be made to form bays for perennials; or there may be a dotting of them for accents of flower color or evergreen foliage.

Perennials, biennials, annuals and bulbs all work in well with shrubs, if the planting is done with understanding. There is no better place for some of the best lilies than among rhododendrons. And there are perennials that enjoy, if they do not demand, the partial shade that planting among or near shrubs gives them. Plant such accordingly; the other perennials in the open spaces. Where shrubs are placed far apart to provide for future expansion, mass perennials—they can be removed later—or use a combination of spring bulbs and annuals or biennials.

Often the best results with shrubs are obtained by using them chiefly for a more or less formal massing around the garden. Privet, hawthorn, althea, barberry and flowering quince are among those available for clipped hedges. Generally the naturalistic effects are the most beautiful of all.

For these plantings, and for shrubberies anywhere else on the grounds, draw upon other classes of plants to fill every bit of space that is going begging. Whether the spaces offers full sun, half shade or complete shade, some plant will find it a congenial home. Shrubberies are always a good

"Abroad there are myriads of the Spanish iris (I. hispanica) and the English iris (I. anglica) in the early summer gardens"

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place for plants that you would like to grow but have not the room for in the garden; or perhaps they do not suit the scheme there. Straight edgings are allowable when circumstances warrant them, but naturalistic colonies are best.

The space under shrubs of a spreading habit need never go to waste. Under deciduous shrubs it is just the spot for permanent colonies of small bulbs which it is often risky to grow in the garden, where their location in little groups is easily lost sight of. Similarly the foam flower *(Tiarella cordifolia)* and other shade-loving carpeting plants will gladly cover the ground beneath shrubs. A bulb and a carpeting plant may be used together, or two different bulbs colonized.

Shrubs have an April to October range of bloom, with the greatest burst of it in May and June. The sweet gale *(Myrica)* and *Mahonia japonica* are due in February and March and *Daphne mezereum* in the latter month, while the witch hazel holds off until November; but between October and April color must largely be a matter of foliage and fruit. Fortunately shrubs are so generous in these two respects that planning for the entire year is possible.

As with perennials, shrubs should be planted for long succession. Thus the forsythia, *Spiraea van Houttei, althea* and *Hydrangea paniculata* are a good sequence, that may be lengthened by adding *Berberis Thunbergii and Ilex opaca* for the completion of a year's circle. As a rule, especially in

shrubberies, strive to get the successive effects with only one or two species of shrubs. No mixed bloom can begin to make the picture that is created by a massing of *Spiraea van Houttei* or pink weigela alone, or laburnum and purple lilacs together. Clashing shrubs need not be discarded if the place is of any size; there is always room for more somewhere.

Do not mass all of the shrubs. Now and then isolate one and let it give full play to individuality as expressed in its natural form. If inclined to primness, let it be prim; if rambling, let it ramble. This not merely for specimens in the garden or on the lawn, but one standing out in blooming time from a shrubbery background. A shrub that has a great burst of bloom—a magnolia, flame azalea, rhododendron, *Hydrangea paniculata,* forsythia, *Spiraea van Houttei, Dentzia corymbiflora,* double *Philadelphus coronarius* (Boule d' Argent) double white lilac (Madame Casimir Perier), weigela or any of the double-flowered fruit trees—if thus left to itself, will be an annual spectacle, growing in beauty with the fullness of age.

In some cases old wood will have to be removed, but keep the pruning down to the appearance of there not being any. There is always a tendency to over-prune shrubs. Where sheer form of a restrained artificial character is desired, there are shrubs trained in standard, or tree, shape to be had. For the lawn this shape has an advantage in that the grass does not suffer beneath it. The lilac,

weigela, *Azalea mollis,* althea, double hawthorn, forsythia, *Hydrangea paniculata,* double almond and rose acacia *(Robinia hispida)* are so trained with particular effectiveness. It is also one of the best ways to use that showy vine, the Chinese wistaria. The price is based on the age of the head, two dollars and a half to five dollars; the stem height is five or six feet in any case.

CHAPTER XIV

SPRING AND SUMMER FLOWERS FROM BULBS

No plants are more interesting to grow in the garden than the bulbous ones, especially those that are hardy. There is a peculiar fascination in buying a dry brown, black, white or yellow bulb, sometimes a mere mite of a thing, burying it in the ground, leaving it there all winter and one day in spring finding it doing its share to beautify the earth. And not the change of a seed into a plant seems so marvelous a transition.

It is in the springtime that bulbs are of the most value in the garden. At that time of the year they are simply invaluable. Not that there is any lack of perennials for spring, if flower lovers would only cast their eyes about; but in neither form nor color can these perform for the garden the gentle offices of the bulbs. Veritable herbaceous perennials though they be, they are absolutely distinct.

A close observation of American gardens for many years has shown that here is a field well-trodden in no more than a few spots. Only the tulip, hyacinth, narcissus and crocus are grown

commonly, and of these it is rare to come across all four in one dooryard. As if this were not bad enough, tulips, to most, remain tulips; hyacinths are hyacinths, the narcissus is a narcissus and the crocus is a crocus, just as if the horticultural world had stood still since the middle of the last century. Single or double, red, blue, purple, pink, yellow or white are still the common differentiations. Of course, these four bulbs can give abundant satisfaction at that, but a greater satisfaction is lost through ignorance of the variety that has converted the modern catalogue into a veritable treasure-house.

Tulips have been separated into important subdivisions since the early days of their culture; it is the emphasis on the subdivisions that is modern. You speak now not of tulips in general, but of a particular class. The commonest bedding tulips, known as early-flowering, are both double and single and the growth is low. While their precise origin is lost in remoteness, they are supposed to have come from *Tulipa suaveolens*, a species from the southern part of Russia. The old tall single bedding tulips are styled late-flowering, May or cottage tulips. These range from two feet to, in some cases, the height of an ordinary walking-stick and bloom well along in May, immediately following the others—which begin in April. Their parent species is *T. Gesneriana.* For many years they were neglected save in the British and Flemish cottage gardens—whence they have been res-

cued, to become one of the most admired classes.

Late tulips were themselves divided some three hundred years ago into four classes—breeders or self-flowers, that is to say, all of one color: bizarres, byblœmens and roses. A peculiarity of tulips is that in cultivation a seedling blooming for the first time is generally self-colored; then, after a few years—they have been known to wait three decades—there will be a change to a feathered state. The lower part of the petals remains as before, but there will be marginal pencilling and wide and narrow stripes or blotches. Bizarres are the ones with yellow bases and markings of red, maroon and brownish shades; byblœmens are white, marked with purples that grade to what is called black, and roses are white with many shades of pink and red markings.

From this race has come a comparatively new one, the Darwin, which some amateurs regard as the finest of all. Certainly it is a noble race, well calculated to send into ecstasies of delight any one who has seen an exhibition of the star varieties—say twenty-five specimens of each, magnificent in form and color and the stems more than two feet long. The Darwins are selfs, or nearly so; some of them are shaded, shot or edged with another tone and the centre may be white, blue or black. No tulip colors are more exquisite.

When the Darwins "break" into a lasting variegation they are known as Rembrandts. These are very strikingly blotched, striped or flamed and vie

in color combinations with the bizarres, byblœmens and roses.

Parrot, or dragon, tulips are a very old class. The large blossoms have deeply toothed petals and the color variegations are extraordinarily picturesque. They remind one rather of macaws than parrots. Golden inside and the outside shaded and feathered with scarlet, purple and green is a summary of the gorgeousness of one variety. The parrot tulips bloom in May. While they are very showy, their somewhat artificial air, weak stems and irregular flowering habit have always kept them out of the foreground.

A further classification of English tulips is sometimes made. These are the old English florist tulips and are merely another group of breeders that have broken, being sub-divided into bizarres, byblœmens and roses. Then there are the tulip species, a great number of which have been brought into cultivation; there are thirty-four of them in a single English list and of these not one has been more than a rare visitor to an American garden. So it is plain that the cup of tulip happiness is being only sipped.

Of the species, a few are in the American market. The sweet-scented Florentine tulip *(T. sylvestris,* or *florentina)* is a very pretty yellow one and the little lady tulip *(T. Clusiana)* is a perfect gem. The latter, which is pale red outside and white inside, will do well in the garden if planted among stones and plant roots in light soil and a

warm, sheltered place. Three red ones, *T. tubergeniana, T. Greigii* and *T. oculus solis* are all very handsome and there is an early pink or white one, *T. Kaufmanniana.*

The lack of tulip education is most deplorable in the case of the cottage and Darwin tulips. Any of these, but most of all the selfs, are among the very choicest material for giving the garden beautiful May color with sharply defined individuality of form. Such cottage tulips as Glare of the Garden, Orange King, Inglescombe Yellow, Mrs. Moon, The Fawn and Black Chief and such Darwins as Clara Butt, Baronne de la Tonnaye, King Harold, Mrs. Krelage, Peter Barr and Mrs. Stanley are a joy to handle in the making of a garden picture.

Of hyacinths there is less to be learned. Only the familiar *Hyacinthus orientalis,* single and double, is generally available in gardens north of Washington, but with protection it is possible to grow the dainty Roman hyacinth in the open ground near New York. What is chiefly to be learned about hyacinths proper is that it is idle to keep on in the old way of making mixed plantings; no bulb loses more by such treatment. There is no excuse for this; named varieties of every hue, that have stood the test of time, are to be had and for low spring massing in a solid tone nothing is better. This is a more expensive plan than buying by color alone, but safer, as in the latter instance there is likely to be a conglomeration of

shades that makes for indefiniteness of tone. A third species, *H. amethystinus,* is a dainty alpine hyacinth that ought to be better known. There is now a white variety of it.

The feathered, grape, musk and starch hyacinths are not of the same genus; they are muscari. One of them, *M. azureum,* was formerly *Hyacinthus azureus.* The deep blue grape hyacinth *(M. Botryoides)* called bluebell in New England, is the only familiar one here and even that is much more of a stranger than it was years ago; as often as not it is an "escape" in the grass. It is fine for garden massing and so are the light blue and "pearls of Spain" (white). The Trebizond starch hyacinth Heavenly Blue has the gentian color and is very lovely in the garden. The ordinary starch hyacinth *(M. neglectum majus)* and the Caucasian starch hyacinth *(M. paradoxum)* are blue-black. The fragrant musk hyacinth is *M. moschatum majus,* the tassel hyacinth *M. comosum* and the plume or ostrich feather hyacinth *M. plumosum.* The last has been developed into mauve plumes of great size, worthless to the garden save as curiosities.

Old gardens knew a few kinds of narcissus. The common ones were the yellow "daffy" *(N. Telemonius plenus, or van Sion),* the orange and yellow "Butter and Eggs" *(N. incomparabilis fl. pl.),* the "jonquil" *(N. alba plena odorata)* and the poet's narcissus *(N. poeticus),* all but the last double. Only the first has begun to hold its own

and the chief newcomer is the single yellow daffodil *(N. pseudo-narcissus)*, generally in only a slight improvement of the species form.

Yet this is the day of the daffodil—to use the most convenient English name for covering the genus Narcissus. In England there is a daffodil craze, with no parallel save the historic tulip mania in Holland. It is said that £50, about $242, is the top-notch price for a single bulb. In any event prices in excess of ten dollars are tolerably common; some of the 1912 quotations for novelties were Challenger, $162; Michael, $90; Empire, Jasper and Sheba, $76, and Czarina and Sir Galahad, $50.

It is doubtful if the craze will ever cross the Atlantic. Meanwhile daffodils than which none could ask anything more beautiful are not in every garden, though sold as low as half a dollar a dozen. Two of the best single trumpet daffodils, Emperor (all yellow) and Empress (yellow with a white perianth) cost no more than that and will be just as satisfying to the general run of flower-lovers as costly bulbs are to the ardent British collector. The poet's narcissus and its yellow counterpart, *N. incomparabilis Barrii conspicuus*, which cost less than half as much, are two more of the best. And these are only four selections of cheap single kinds. The natural hybrid of the poet's narcissus, *N. biflorus*, is very beautiful but is more common from Delaware southward. The double white jonquil, better named now gardenia

"If there is a stretch of thin grass that is not cut early, naturalize some of the bulbs"

daffodil, is good for massing but rather capricious as to blooming. It exceeds in beauty the four other double ones, Van Sion, "Butter and Eggs" and the remaining two incomparabilis variants, Orange Phoenix ("Eggs and Bacon") and Silver Phoenix ("Codlins and Cream").

The clustered nosegay daffodil *(N. polyanthus)* has beautiful forms for the garden, but they are tender and require protection. Their poetaz hybrids are less tender. The Chinese sacred lily *(N. orientalis)* is not grown in the open in cold climates. The true jonquils are hardy and it is unfortunate that they have not come to the front more. Both the campernelle jonquil *(N. odorus)* and the smaller kind *(N. Jonquilla)* are exceedingly graceful yellow flowers. Of the small species called daffodils the hoop petticoat *(Bulbócodium citrinus)* and the rushleaved *B. gracilis,* last of all to bloom, are deserving of close acquaintance. The angel's tear daffodil *(Triandrus albus)* is not very hardy.

The crocus is as much of a surprise as the tulip and daffodil to those who find that it is no longer merely a crocus. So many crocus species have come into cultivation that they are the subject of a very remarkable monograph. Nor do they continue to suggest only spring; there are autumn-blooming and winter-blooming ones, so that in some English gardens it is possible to have crocus color from August to March without any interruption.

That is work for the collector; the thing for

others to do is to get a better understanding of the superiority of the new named spring crocuses over the old. As with hyacinths, it is inexcusable to buy mixtures when there are such fine named varieties, with larger bloom, for producing sheets of early spring color—at about one cent a bulb by the hundred. These improvements of *C. vernus* and *C. aureus* answer ordinary garden purposes so well that there is no special need of extending one's knowledge of the spring-blooming species.

Of the host of other spring bulbs the fritillaries have two very hardy representatives that have been gradually disappearing from old gardens without being asked to enter new ones. Yet one of these, the crown imperial *(Fritillaria imperialis)* is a grand and stately figure in the hardy garden in spring; the yellow, orange or red bloom is rich in color and the form of the plant unique. The other is the snake's head fritillary, or guinea-hen flower *(F. meleagris)*. The white or nearly white kinds are best for garden pictures; the dull purple shades do not show up well at any distance. There are many other charming fritillary species, but most of them are for specialized culture.

For intense blue in March the Siberian squill *(Scilla sibirica)* is unrivalled unless it is by the early *S. bifolia* of the Taurus mountains. These two, which have white varieties, are the most desirable of the very low scilla species that are usually called squills. The taller May-flowering species are distinguished as wood hyacinths, though the

English one *(S. nutans)* is better known as bluebells. This is a little more than a foot high and very handsome in the garden, as are also the taller Spanish wood hyacinth *(S. Hispanica,* or *campanulata)* and *S. patula.* Of the first two there are white and pink variations, but the blue type is preferable to them.

The "glory-of-the-snow" (*Chionodoxa*), which has delicate blue star blossoms with a white center, is another inexpensive bulb that sadly needs recognition of its charms. It blooms in March and masses beautifully. There are several species; the one generally planted is *C. Luciliae,* which now has pink and white varieties.

Snowdrops would be worth planting for possible February bloom even if their little white bells were not a welcome sight at any time. The old snowdrop *(Galanthus nivalis)* has a double form that may appeal to some; but it is inferior to the single, and neither is the equal of the giant snowdrop *(G. Elwesii)* for garden effect. The Crimean snowdrop *(G. plicatus)* is another tall species, and there are half a dozen more if these do not offer variety enough. The somewhat similar spring snowflake *(Leucojum vernum)* and summer snowflake *(L. aestivum),* the one blooming in April and the other in May, are hardly less useful.

Other thoroughly reliable spring bulbs are the spring star flower *(Triteleia uniflora),* which has deliciously fragrant bluish white blossoms; the Indian quamash *(Camassia esculenta)* with tall spikes

of blue blossoms; the golden garlic *(Allium Moly)*, which is about the last of the spring bulbs to bloom, and *Pushkinia libanotica.* The best star-of-Bethlehem *(Ornithogallum arabicum)*, the firecracker plant *(Brodiaea coccinea)*, the netted iris *(I. reticulata)* and the "hardy gloxinia" *(Incarvillea Delavayi)* are fairly hardy in the North, with protection.

Winter aconite *(Eranthis hyemalis)* responds less readily to culture in the North than any of the bulbs mentioned—none of which calls for any favoring other than as stated in a few instances. Sometimes there is a moist place in a garden under a shrub; there, perhaps, the green foliage tufts and yellow blossoms will show themselves in March or April. The bulbs are cheap.

With coddling still more spring bulbs are possibilities in the North, but are materially less risky propositions to the southward. Several of the windflowers that are so beautiful in England every spring, such as *Anemone coronaria, A. fulgens, A. St. Brigid, A. hortensis, A. blanda, A. apennina* and *A. nemorosa Robinsoniana,* are among these—so are *Gladiolus Colvillei,* the early species that is forced in quantities; the little known but very beautiful deep blue *Ixiolirion tataricum,* the showy red amaryllis-like *Habranthus pratensis* and the gorgeous single and double forms of Asiatic ranunculi. Here is a list that ought to be drawn on more in the nearer South.

All of the spring bulbs, of course, are planted

the preceding autumn—generally in October. Only the tulip, hyacinth, narcissus and crocus are very well adapted for general formal planting. For such planting place hyacinths six inches apart, tulips, four, daffodils three and the crocus and other small bulbs two. But with any spring bulb the most satisfactory planting is informal. Use clumps and drifts and aim for effects with a few good varieties, so far as the garden proper is concerned. Other varieties may be colonized here and there in the shrubberies. Combine a May tulip with a perennial rather than with another variety so as to secure marked form as well as color contrast.

Small or large clumps of tulips (selfs), hyacinths, narcissus, and almost any of the little bulbs are very effective when scattered irregularly through the hardy garden. Use the imposing crown imperial only when it can be insured permanency of location; it dislikes being disturbed. The little bulbs, however, are best colonized under deciduous shrubs—where a great many kinds can be grown in unutilized space and left to themselves for years. Some of them, especially scillas, spread rapidly by self-sown seed. If there is a stretch of thin grass that is not cut very early, naturalize some of the bulbs; single trumpet daffodils, *Tulipa sylvestris,* May-blooming tulips (selfs), grape hyacinths, snowdrops, scillas, guinea-hen flower and crocus are all willing subjects.

Summer flowers from bulbs that withstand the northern winter in the open ground are largely the

contribution of the lilies. These are the most glorious of summer bulbs and fortunately the reliable species are sufficiently numerous to provide bloom from early June into September. The orange lily *(Lilium croceum)*, the madonna lily *(L. candidum)*, the tiger lily *(L. tigrinum)*, the handsome lily *(L. speciosum)* and the gold-banded lily *(L. auratum)* are very hardy, though the last requires frequent renewal, and will carry the season through. All told, there are nearly thirty hardy species from which to make a selection.

Two of the bulbous irises would do more if they had the chance. Abroad there are myriads of the Spanish iris *(I. hispanica)* and the English iris *(I. anglica)* in the early summer gardens but in the United States, despite their cheapness, they make scant headway. The bulbs are planted like tulips and require no more care. Named varieties of the Spanish iris are only one dollar a hundred; mass the selfs, like Belle Chinoise, King of the Blues and British Queen. The larger and later English iris is similar, but lacks yellow; Othello and Mont Blanc are good selfs.

Dahlias and cannas, which are tuberous, and the large-flowered gladioli loom up more prominently in the summer garden. All have unquestioned value there, though they are not very plastic material. They would be of more value if the rule was to plant them with greater care; they are mixed too much. Try one variety—the yellow Princess Victoria show dahlia, the soft pink

Wawa canna or the vermilion Brenchleyensis gladiolus—in a rather bold garden grouping and let there be none other in sight. The effect will be a revelation if you are addicted to the variety habit. Or try two varieties harmonized or contrasted; for a striking violet and yellow combination plant the Blue Jay and Sulphur King gladioli side by side.

Two of the most graceful and colorful summer-flowering bulbs, the African corn lily (*Ixia*) and the monbretia, are nominally hardy with protection—the latter has stood the test well up in New England, but north of Washington it is best to plant the bulbs in the spring and take them up in autumn. Ixias and the closely allied sparaxis have strange color combinations, even seagreen with a black center. Plant by named varieties; a mixture is horrible. Monbretias run the whole gamut of vermilion, orange and yellow shades. These also ought to be planted by named varieties. The new hybrids cost more than the old, but have larger blossoms.

The great white summer-flowering hyacinth *(Galtonia,* or *Hyacinthus, candicans)* is treated the same way in the North. Being white, it fits anywhere. Try it with the scarlet *Gladiolus Brenchleyensis,* or one of the primrose or violet Groff hybrids, instead of using two varieties of gladioli. The height is about three feet, but this is doubled in favorable circumstances.

The white bugle lily *(Watsonia ardernei),* from

the Cape of Good Hope, resembles a gladiolus but is taller; it is very fine for the garden. The yellow calla (*Richardia Elliottiana*), which masses well in appropriate positions; the Chilian lily (*Alströmeria chilensis*), which is not hardy without protection; the brilliant red Scarborough lily (*Vallota purpurea*), the pink and white fairly lilies (zephyranthes) and the tiger flower (*Tigridia pavonia*) are all desirable tender bulbs.

A few of the summer bulbs are grown in the North only in tubs or pots, which may be sunk in the ground if desired—to give the effect of planting out. The great crinums, *C. longifolium* (capense), *C. Moorei* and *C. Powelii* and the blue African lily *(Agapanthus umbellatus)* are conspicuous among these.

The showiest of the autumn-blooming bulbs is the belladonna lily (*Amaryllis Belladonna*), whose pink and white bloom is superb when planted out in a sheltered, hardy border as it is in England. Here Washington is about the safe northern limit for this treatment. And even there it should have some attention. It should have warmth and be planted deep, but when flowering it is such a desirable addition to the garden that the extra care is of negligible consideration. There is a wide range of shades from white to red and a variety in form and size of the flowers.

Other autumn-blooming bulbs are numerous, but while they are usually hardy few of them are for the many. The saffron crocus *(C. sativus)* and

the blue *C. speciosus* are easy selections; so are the white meadow saffron *(Colchicum autumnale alba)* and the lily-of-the-field *(Sternbergia lutea)*. Add, perhaps, one of the hardy cyclamens, *C. neapolitanum,* as an experiment.

Winter-blooming species of crocus, iris and cyclamen are suitable only for mild climates—even then special care will be necessary.

Chapter XV

SEASONAL EFFECTS WITH FLOWERS

In the "Royall Ordering of Gardens," Bacon held that "there ought to be Gardens for all the Moneths in the Yeare: In which, severally, Things of Beautie may be then in Season."

Though the writer had princely magnitude in mind, this is a suggestion that might be carried out on a place of even moderate size without any appalling difficulties to overcome. All that is necessary is to pick out an even dozen spots on the home grounds and see that each has a dominant note characteristic of a certain month of the year. Geographical sequence is quite unimportant. Nor does it matter at all whether in each, or in any, case there is actually a garden. Thus a colony of snowdrops in a warm spot would not be too small to be called the February garden. It is no one's business but your own how much play you allow your imagination.

In a single garden, especially if it be of irregular design, it requires no great amount of ingenuity so to plant the plot that in every month of the year some one spot will have a glory unmistakably

associated with it. Or, where space and time at one's disposal are no barrier, a garden of the year could easily be created in the form of a wheel. The hub should be a good-sized pool, or bird bath, and from the path around it should radiate as many paths as there are months. A rim could be added if precise formality were desired, but very often spokes of unequal length would be better—and these need not always, or ever, be straight.

Such a garden would develop into a perfectly permissible, but rather foolish, fad if it were laid out with the idea that no path was to be a pleasant walk save in the month to which it is dedicated. The point is not that at all; it is simply that the April path shall savor so strongly of April as to make it that month's particular part of the garden.

The January path ought to be the way of approach. The chief reason is this: evergreens must be the seasonal note and by the use of these a permanently attractive entrance may be made. Moreover, their green will always be the best of frames for the color that the July path, directly opposite, will bring into the vista. The evergreens will have to spread into the February path on one side and the December path on the other. So long as it ceases to be dominant, the note may extend to any or all of the other paths.

It would be possible in a fairly cold climate, say southern New England, to have at least one dis-

tinguishing flower for each month. But this is a very pretty theory that may or may not come out all right in practice; it depends on the winter, and some other things. Snowdrops are rather reliable "Fair Maids of February," if they are planted where the snow is likely to melt soonest, and there is not only the witch hazel for November but a very tardy, and very tiny, hardy yellow chrysanthemum. December and January are the hardest months. The Christmas rose is only tolerably dependable; sometimes it comes into bloom in October. More likely to appear in either month is a stray pansy, California violet or "Johnny-jump-up," all of which need no more encouragement than a bit of a thaw.

Plant Christmas roses for December, "Johnny-jump-ups" for January and snowdrops for February, by all means, but for assured seasonal notes use, to again quote Bacon, "such Things, as are Greene all Winter." The red-cedar for its stateliness, would better be the note of the January path. Holly answers very well for December and the rhododendron for February. There is a fairly wide choice of both the narrow-leaved and broad-leaved evergreens, and this after rejecting any of doubtful hardiness.

March has the lovely blue of *Scilla sibirica* and glory-of-the-snow, as well as the bright yellow of *Crocus Vernus* to denote it. Usually the later white and purple crocuses can be counted on also. Thenceforward, until November, choice may be-

"In June the rose comes first. A few kinds, planted separately, will give far and away the best results"

come a matter of preference; so many flowers are available.

There is no reason why preference should be kept down to one, two or three kinds of flowers a month; almost any number may be employed, according to desire and opportunity. As a rule a path will yield the maximum of pleasure if the chief accent is brought about by one or two kinds. This accent need not be employed for the whole month; there can be one, say, for the early part of it and another for the latter part.

Thus April might disclose a drift of *Arabis albida* and another of *Alyssum saxatile* as a striking early note, with a straggling patch of tulips of one color for later in the month. The two drifts may run into each other; but the third colony would better be some distance away and on the other side of the path. This is partly because the early note will probably not have disappeared when the later one comes on and partly because the isolation of the special pictures permits a wider range of color. In this case, for example, the arabis and alyssum are white and yellow; but pink or red could be used for the tulips.

May should have a marked fleur-de-lys note, first with the deep purple *Iris pumila* and later with one or two self-colored kinds of the germanica type. The *Aubrietia deltoidea, Myosotis dissitiflora, Primula veris superba, Doronicum caucasicum,* columbine and late-flowering tulips are also good for accenting.

In June the rose comes first. A few kinds, planted separately, will give far and away the best results. But the June walk ought not to be without foxgloves, both pink and white,and a generous supply of Canterbury bells; use the pink, lavender or purple with the white. For the very end of the month, always, a clump of *Lilium candidum.*

July's path might have the tall blue larkspur and a colony of one of the several orange or yellow lilies of the month. And there are the Japanese iris and the Miss Lingard variety of *Phlox suffruticosa,* as well as the imposing hollyhock.

Some of the best August notes are furnished by *Phlox paniculata,* the two kinds of boltonia, *Lilium auratum* and *Lilium speciosum.*

Various hardy asters, notably *A. novae angliae* and *A. laevis,* the Japanese anemone, *Aconitum autumnale* and the beautiful new heleniums may be used for September.

The chrysanthemum is the unique October note. Fortunately this is a most generous one as to variation in color and duration of bloom. The old-fashioned large yellow, pink and white varieties and the rose and red "buttons" are particularly good for bold groupings.

Where a hedge is not used for a rim, shrubs may close the farther end of some of the paths, or of all but the January one. And if the paths diverge until there is a wide space between every two, a few shrubs or small evergreen trees can be planted there. Some of these may be fairly tall in order to

create partial shade along a path; that would make a place for shade-loving plants. The shrubs, of course, ought to carry out the seasonal idea.

Occasionally a flower runs over from one month into another; in that case let it do the same thing with the corresponding paths. But there must be less consistent straying, too. While the main showing of foxgloves belongs in the June path, let there be a few spires in the January path and so with enough of the other flowers to brighten up bare spots. With some of the flowers not required for accenting notes it will be just as well to plant the entire stock in a path where it does not belong if bloom is more needed there at a given time.

The same idea is readily applicable to a garden of the four seasons. Lay out four paths instead of twelve and name them spring, summer, autumn and winter: The last to be the entrance one. The remaining three may be Y-shaped to advantage: This to break up the wider spaces and to add to the number of vistas.

And, in general, what has been said applies to any effort to give the garden seasonal effects. It is not argued that there must be such effects; rather that they add immeasurably to the enjoyment to be derived from the growing of flowers as a pastime, not a little of which enjoyment lies in the planning and the waiting for results.

Nor is it argued that seasonal notes are so to concentrate attention as to exclude the following out of ordinary garden desires. One might grow

a hundred kinds of flowers and yet use only a single accent—the daffodil in April, the columbine in May, the rose in June, the larkspur in July, the speciosum lily in August, the Japanese anemone in September or the chrysanthemum in October; one covers the ground sufficiently if it is enough for you.

It requires no profound knowledge of garden material to work out these beautiful forms of garden expression; not infrequently they come without conscious effort. Blooming season, color, height and habit of growth are the important things to know, after the question as to what plants will do well in a given situation has been decided.

The blooming season is easily determined. Color is much more difficult. It must be not only decided in tone but—unless the blossoms are very large—spread so profusely over the plant as to furnish solidity of effect. Whether the color is used for harmony, as lavender Canterbury bells with purple ones, or for sheer contrast, as white and pink foxgloves together, matters little, so long as there is no mixture other than the pardonable kind. This is letting, say, a white iris or two stray over into the adjoining colony of purple ones—just as if nature had had the ordering of it. While two kinds of one flower, or two kinds of flowers, are a safe rule it is not one to be adhered to rigidly; good taste can always settle that.

Height is mentioned because even carpeting plants, such as *Phlox subulata,* may be used in

"For assured seasonal notes use, to again quote Bacon, 'Such things as are Greene all Winter'"

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spring, whereas later in the season, unless there is absolute isolation, only taller material will stand out by itself. As for habit of growth, foliage and stems may make one plant more desirable than another for a certain spot; thus *Yucca filamentosa,* for its form, might be a better July note somewhere than *Platycodon grandiflorum,* for its blue color.

Perennials offer the lines of least resistance, because of their permanence; but some of the biennials, or plants best grown as such, are invaluable. These include self colored sweet-william and columbine, *Myosotis dissitiflora,* Iceland poppy and hollyhock, as well as foxglove and Canterbury bell. Annuals are more useful as summer filllers than as summer accents, though at times not to be despised in the latter capacity.

Miss Gertrude Jekyll's theory of a seasonal garden is worth close study because she has put it to a practical test on her English place. "I believe," she says, "that the only way in which it can be made successful is to devote certain borders to certain times of year: each border or garden region to be bright for from one to three months."

No doubt this is the best, if not the only, way when striving for the ideal is made a life work, as in Miss Jekyll's case. But the plan is an admirable one for a place that is either very large or sufficiently diversified to permit the division of the garden into segregated sections. Miss Jekyll has an enormous summer border, a secluded spring garden and so on.

The plan moreover is one that, like Bacon's, has suggestions for the least of places if the mind of the flower lover is at all adaptive. Certainly the secluded spring garden is a hint for any one who wants to strike a seasonal note that need mean no more labor than one is disposed to put into it.

Chapter XVI

THE MAKING OF FLOWER PICTURES

THERE is a particularly appealing sentence in Miss Jekyll's "Colour in Flower Gardens." This reads: "It seems to me that the duty we owe to our gardens and to our own bettering in our gardens is so to use the plants that they shall form beautiful pictures." Her ideal is "gardening that may rightly claim to rank as a fine art."

No garden ideal could be finer. Unfortunately none is more difficult of attainment, in the complete sense that Miss Jekyll has in mind. In gardens, as elsewhere, "art is long," but likewise "time is fleeting"—there are other things to do. Most must be content with shooting the arrow high, the while they take a grain of comfort in the thought that though they will inevitably fail to reach the mark they will have something, and be the better, for the striving.

So these "beautiful pictures," even if for long they may exist only as insubstantial visions, ought to be the inspiration of the humblest as well as the grandest of garden schemes. While not essential, save to the highly sensitized nature, they do put a

keener edge on the pleasure to be derived from "the adaptation of things in the natural world to the uses of life"—to quote one definition of art.

Art, by the way, need not be taken so seriously as to make the pursuit of it in the garden at once a worry and a despair. If it seems too much of a bugbear think of it "as the application of skill to the production of the beautiful by imitation or design," and let it go at that. With good taste and imagination, perhaps with only common sense, you will arrive at a sufficiently artistic goal.

Garden pictures have the same beginning as paintings on canvas—composition, always with the idea of adapting nature rather than merely imitating it. Form, which may not overlook so simple a thing as a flower stem; foreground and background are all prominent factors in this. Color, when taken to mean the hue of blossoms, is non-essential; it may be left out altogether. But color does not signify that, despite loose usage of the word; else would garden pictures be but patchwork quilts. It is made up of foliage as well, and of sky, rocks, buildings and everything entering into foreground and background.

Pictures, of course, may be set down anywhere: again and again this is done with wholly satisfying results. But what makes the pains really worth while is to create these pictures precisely where they ought to be—which is determined by the natural, or potential, advantages of a certain spot.

To illustrate; there is no law against planting

"What makes the pains really worth while is to create these pictures precisely where they ought to be—which is determined by the natural, or potential, advantages of a certain spot"

larkspur and madonna lilies together on a border and callng the group a blue and white picture—much worse things than that happen in gardens every year. It is far better, however, first to reach the conclusion that a certain spot demands fairly tall plants, which well define themselves. These will, you feel, be more effective if there are two kinds, of not only unequal height but marked difference in the shape of the blossoms and the way they are carried on the stems.

Then let personal preference step in and go as far as it likes—consistently. If larkspur and madonna lilies are your choice, plant them. But remember that blue and white are not the everything of color in your picture; the lily foliage is a delicate green, that of the larkspur darker. And you must have brought other colors into your background—perhaps a sky that from dawn to sunset is everchanging.

Whether a picture is the whole garden or a particular grouping in it, or an isolated spot on the home grounds, matters very little; the main thing is to have as many pictures as the circumstances warrant. For this is not all of the growing of flowers; it is merely the supreme incident.

A garden may be made a well composed picture at all times of the year, but that would mean either being a veritable slave to it to the end of life or expending an amount of money that most gardeners for pleasure could not afford. Even then there would very likely come intervals of imperfection

sorely to try a soul now grown somewhat finicky, if not intolerant.

Rather than set one's self about a task little short of superhuman, the wiser part is to make the most modest of beginnings and let art, to say nothing of labor, grow with experience.

A simple way is to compose a picture of the garden entrance and the vista through it. This entrance, say, is defined by two slim but shapely evergreens of moderate height. The path almost immediately divides in twain, to form a large bed, beyond which is a line of shrubbery. A rather bold massing, with an edging, is thought of for the bed. Many combinations there are; but take foxgloves and Canterbury bells. White of the one and pink of the other will do, with green in the distance. Here are the main features of an extremely simple and uncomplicated garden picture.

It is a June picture, but easily made one of a series of half a dozen or so from spring to autumn according to the time one cares to give to planning and planting. And it does not interfere with the creation of any number of pictures inside the garden; they may come along later, or not at all.

In the garden itself pictures are most easily made by taking the angle where two paths separate, or the end of one, and working out an effect. Very frequently one kind of plant is sufficient and usually two are enough; but there can be no set rule as to that.

Simple pictures may be made by planting a rose

at the side of the front door in the old-fashioned way; with a rambler on a porch, arch or gateway; with a woodbine on a juniper or a wistaria on a pine; with a nearly submerged boulder and a patch of *Phlox subulata* and so on to the end of a chapter, limited in length only by failure to see glorious opportunities.

And there are innumerable lesser opportunities. A little patch of the old *Campanula rapunculoides* or *Sedum spectabile* close against the gray stones of the foundation of a house makes a picture as charming in its way as many of the more pretentious ones. Again, a small colony of foam flower *(Tiarella cordifolia)*, or bloodroot, or white violet, in the shade of a shrub, with brown twigs above it and brown earth around, is no less delectable. Do not despise the brown things—even some scattered leaves of the garden's winter blanket. Nor fail to use the least of material; three purple crocus blooms and their grass-like foliage, and only the soil for a background, will make a miniature at any rate.

So far the pictures spoken of have been seasonal —in evidence at this or that time of year and then gone until another twelve months shall have come around. These present the minimum of difficulty and are therefore the best for the beginner. But a great deal of the pleasure of making garden pictures lies in the much more complicated task of arranging a succession of them in a single spot, nature to seem to evolve one from the other as the season pro-

gresses as lantern views dissolve one into another.

This requires an accurate knowledge not of all plants, but of enough to provide adequate working material. If perennials are used, and they are best, it is not a small undertaking to arrange a succession of plants that shall develop four distinct seasonal pictures, with no more bareness between times than can be avoided. It is worth trying, however. If failure comes, that will not rob the gardener of all his joy; some of it will have been the experience in the planning.

A good compromise is to use a spot for only two pictures and these quite widely apart as to season. Thus the tall single cottage tulip might be planted behind hardy candytuft for a May effect and autumn monkshood for an October one. The candytuft is evergreen and the foliage of the monkshood is fine all summer—which illustrates the need in picture composition of knowing much about leaves, as well as blossoms, height, season, habit and so on.

Foliage is of untold color, as well as form, value. Besides every conceivable shade of green, there are gray, yellows and whites—with red entering into the death notes of autumn and the life notes of spring. Twigs and stalks, too, are not all green; there are red, brown, yellow and gray ones. And the berries; they may be red, black, blue, yellow or white.

Color supplied by blossoms, as has been said, is not indispensable. Its place in a garden picture is

nevertheless so appropriate that it, or the white of colorless blossoms, ought to figure in the majority of compositions.

Flower color, which must include white for the sake of phraseological covenience, is employed in two ways—to emphasize individual form and to obliterate it, the latter by means of solid sheets of bloom. For example, in a spring picture of reddish orange crown imperial and white *Phlox subulata,* form is brought out in the one and quite lost in the other. The reddish orange is a selected color note, but it never lets you forget the bells that make the crown. Nor is it by any means so big a note as the green or the white. This combination was arranged because the crown imperial has height—a rare thing in early spring.

Chapter XVII

FLOWERS FOR CUTTING

It is a pretty poor home garden in which no flowers are picked. What are they there for—mere show? Such gardens exist, but happily they are in the minority.

There is never any need of robbing perceptibly the garden of its treasures, no matter how small it is. If the cutting is done with judgment here and there, and stems are taken full length, it is seldom that the reduction of bloom is apparent; a moderate-sized garden will often stand the loss of a market basket or two of its floral glory. Judgment will not err if it has back of it the knowledge that quantity in the case of flowers cut for the house is very unimportant; three stalks of lilies in a vase will be seen in all their beauty of form whereas fifty jammed into a jar together are an unnatural massing.

On large estates there are special cutting gardens. This is a wholly admirable idea for even the smallest place. It not only relieves the garden proper from too much strain, but where a great many cut flowers are desired for the house the tract

can be at the same time a reserve garden or nursery. The modern tendency, and it is a good one, is to keep down numerically the variety of material employed in garden pictures. For much, or all, of what is rejected as picture material, though too fondly liked to discard altogether, the reserve garden is a convenience amounting to a necessity.

It is just as well to isolate this garden, though there is no occasion to do so if ordinary pains are taken to keep it in good condition; there are cutting gardens that are really beautiful, even where the beds are as simple as if the planting were lettuce and there is little that is not in straight rows.

Planting in straight rows is best for the simple reason that it lightens labor. No planning is necessary for the planting and if sufficient space is left between the rows most of the weeding and cultivation can be done with a hoe. The work of fertilizing and winter protection is also reduced to a minimum.

Grow a few shrubs in the cutting garden if there is room; some of them are readily propagated by cuttings. Shrubs elsewhere on the grounds may, of course, supply enough cut flowers without injury. But these should not be drawn on too heavily; several, like rhododendrons and azaleas, not at all. In the cutting garden plant forsythia, for branches to force in the house in February; the pink-flowering almond, or any good deutzia, weigela, viburnum, spirea, hypericum or lilac. These may be growing nursery stock or employed for an in-

formal hedge to screen the planted space from view.

Plant hybrid perpetual and hybrid tea roses just as if they were so many cauliflowers or eggplants. Use a large number of one kind in preference to a few of many kinds, so that no mixing wil be necessary when cut in quantity for the house. The white Frau Karl Druschki is among the best hybrid perpetuals for cutting with long stems, particularly when partially opened. A dozen plants of this, or Mabel Morrison, or Baroness de Rothschild or General Jacqueminot, is better than three of each. La France is a fine hybrid tea for the purpose; so are Killarney, Grüss an Teplitz and Kaiserin Auguste Victoria. Such old teas as Isabella Sprunt and Safrano, the very fragrant noisette, Céline Forestier, and the moss rose, Blanche Moreau, are further selections from a wide range; give the teas extra winter protection. Where quick results are desired, buy two-year-old plants—unless they are novelties, thirty-five cents is a fair price.

There are no better perennials for cutting than the German, Siberian and Japanese irises, brief as the life of the blossoms is. The selfs are by far the best—the purple, pale, blue, straw-colored and pearl German, the blue Siberian and the kindred white *I. orientalis* and the purple and clear white Japanese. The two Japanese kinds go well together in vases and blue cornflower is a good accompaniment for the straw-colored German.

"On large estates there are special cutting gardens. This is a wholly admirable idea for even the smallest place"

Mail

Plant not only the light and dark blue tall larkspur but the lower and much more graceful *Delphinium chinensis.* The latter has both of the blue shades and white as well. It is highly desirable for cutting, but unfortunately does not last long in the house. Phlox of the tall late kinds has the same fault of soon beginning to shed petals on the table or floor. Of the *P. suffruticosa* type choose Miss Lingard and of the later *P. decussata* any of the well-defined shades—Mrs. Jenkins, Siebold and Madame Paul Dutrie are all good varieties.

The old double clove-scented grass pinks and the newer Marguarite carnations; the double *Lychnis viscaria,* the salmon and mulberry shades of oriental poppy, *Pentstemon barbatus Torreyi,* white or clearly defined colored herbaceous peonies, *Funkia subcordata,* feverfew, *Aconitum autumnale,* sea holly, *Anemone japonica,* all the hardy asters, boltonia, fraxinella (dictamnus), doronicum, *Coreopsis lanceolata, Centaurea montana,* pompon chrysanthemums, pyrethrum, *Baptisia australis, Campanula persicifolia, Campanula trachelium,* antherícum, anthemis, amsonia, trollius,, helenium, *Valeriana officinalis, Statice latifolia, Gypsophila paniculata,* bleeding heart, *Scabiosa caucasica, Ranunculus aconitifolius fl. pl., Primula veris superba, Primula cortusoides Sieboldii,* the California violet, *Phlox divaricata, Monarda didyma, Lychnis Haageana,* lupine and *Helleborus niger* are among the other perennials that are desirable.

The Canterbury bell, iceland poppy, sweet-william, columbine and the gloxinoides type of pentstemon are the best of the biennials, or plants treated as such. The foxglove is less satisfactory only because the bells fall quickly.

Among the annuals and plants so classed the pansies, ordinary and tufted, are very choice cut flowers if grown by varieties and in sufficient quantity to permit the removal of branches; pansy blossoms with only their own little stems are not themselves in vases. China asters, both double and single; scabiosa, nasturtium, sweet peas, nigella, Shirley poppies, clarkia, sweet alyssum, African marigold, larkspur, *Arcotis grandis,* cornflower, chrysanthemum, nemesia, Drummond's phlox, schizanthus, mignonette, candytuft, cosmos, sweet sultan, coreopsis and salpiglossis are all equally desirable in their way. Grow the nasturtium on poor soil. For early risers the Japanese, Heavenly Blue and other morning glories may be added; besides they are especially beautiful on the breakfast table.

Of the hardy bulbs, plant only the lilies whose odor is not too strong for the house. The best of easy culture are *L. candidum, L. speciosum, L. longiflorum, L. tigrinum* and *L. croceum.* Any of the May-flowering tulips, single hyacinths, all kinds of narcissus, *Fritillaria meleagris, Scilla nutans,* the giant snowdrop, *Allium Moly,* quamash, Spanish iris, English iris and the Trebizond starch hyacinth, Heavenly Blue, are other selections of the

highest merit, both for culture and beautiful bloom.

The dahlia and gladiolus are nowhere so valuable as in the cutting garden. Choose free-flowering dahlia selfs, with the habit of long stems, and plant the gladioli at fortnight intervals to secure a longer season of bloom. Both the montbretias and the ixias are superior cut flowers and neither is expensive excepting for the newest kinds. The single tuberose is very good indeed for cutting, though rarely used. Tigridias are showy, but perishable.

Although variety is better relegated to the cutting garden, the advantage of keeping it well reduced in the case of plants grown primarily for cut flowers cannot be too strongly emphasized. Favorite flowers first and then the favorite variety or varieties of these should be the rule. Buy bulbs and seed by name, to avoid mixture in a row: sometimes the solid effect in the cutting gives you just the idea you want for the house or the hardy garden.

Some of the herbs, notably the common sage, wormwood and burnet, furnish beautiful foliage for cutting—the first two in silvery sprays. The southernwood *(Artemisia abronatum)*, Roman wormwood *(Artemisia pontica)* and lavender cotton *(Santolina Chamaecyparissus)* are similarly useful. One plant of the lemon verbena and another of rose geranium there ought always to be.

With a coldframe a much longer season of California violets is possible. This is also the

best way to grow the beautiful *Anemone St. Brigid* in the North for cutting—as well as other perilously tender bulbs and perennials.

The planting of the cutting garden, of course, should be so arranged as to give it the longest possible season. April to October, inclusive, is not a difficult range for bloom, and during the remainder of the year evergreen foliage and berries are easily available. The common black alder, or winterberry *(Ilex verticillata)* has excellent red berries for cutting.

Chapter XVIII

THE MOST DEPENDABLE FLOWERS

Any true amateur would find the growing of flowers only along lines of least resistance intolerably tame sport. To him no small part of the charm of the pastime lies in the overcoming of difficulties. Whatever is not easy to do, even the seemingly impossible, renews his zeal and spurs him to fresh endeavor.

But true amateurs are not the greater contingent of those who grow flowers for pleasure; they are relatively few. Most have not the time, or, lacking the necessary enthusiasm, do not care to take it. The really dependable flowers are good enough for them. This is a very sensible attitude—above all for the beginner, who has ahead years enough in which to graduate into the amateur class if the light of greater experience shall make such a change desirable. Better have prime poppies than consumptive calichorti.

Dependable flowers are flowers that can be depended upon to thrive in ordinary garden conditions and with ordinary care. With this distinction, ordinary is not to be taken to mean precisely uni-

form conditions and care. That would be absurd. A great many of the most dependable flowers, it is true, will thrive in common circumstances; but the sweet pea and lily-of-the-valley, though both are perfectly dependable, differ decidedly in their requirements.

The following lists are made up of some of the most dependable flowers, including a few plants that are grown for the foliage and fruit rather than the blossoms. Only hardy plants that it is believed are reliably so a little above the latitude of Boston are mentioned.

The arrangement, for greater convenience, is according to use as well as season—which necessitates occasional repetitions.

Among shrubs are listed some slow-growing trees used in the same way. Perennials imply herbaceous perennials exclusive of bulbs, and the biennials and annuals include any other plants grown as such.

All hybrids, strains and varieties mentioned below the species are supplementary to the latter. Usually these signify an improvement of the species, but occasionally merely a color variation is noted. The named varieties indicated are sometimes only a few out of many equally as good. In most instances novelties that are still expensive have been rejected in favor of old varieties of tested merit.

DECIDUOUS SHRUBS—For profuse spring bloom before the foliage comes, or virtually so.

Amelanchier Botryapium	Dwarf juneberry
Amygdalus chinensis fl. pl.	Double almond
Amygdalus persica fl. pl.	Double peach
Azalea gandavensis (pontica)	Ghent azalea
Daviesi	white
Géant des Batailles	red
Nancy Waterer	yellow
Unique	copper
Azalea mollis	Japanese azalea
Anthony Koster	orange
J. C. Van Tol	red
Azalea nudiflora	Pinxter flower
Cerasus avum fl. pl.	European double cherry
Cerasus hortensis fl. pl.	Japanese double cherry
Cercis canadensis	Judas tree
Cornus florida	Dogwood
Corylopsis spicata	Flowering hazel
Cydonia (Pyrus) japonica	Japanese quince
Candida	pure white
Malardi	rose
Maulei	orange
Forsythia Fortunei	Golden bell
Forsythia suspensa	Weeping golden bell
Laurus benzoin	Spice wood
Magnolia atropurpurea	Japanese magnolia
Magnolia conspicua	Chinese magnolia
Magnolia stellata	Starry magnolia

Prunus triloba	Double plum

DECIDUOUS SHRUBS—For more or less broad effects of white and colored bloom with foliage; spring to early summer.

Amorpha fruticosa	False indigo
Azalea viscosa	White swamp honeysuckle
Chionanthus virginica	White fringe
Cytisus laburnum	Laburnum
Deutzia corymbiflora	Flat-clustered deutzia
Deutzia crenata rosea plena	Double pink deutzia
Candidissima	pure white
Deutzia gracilis	Slender deutzia
Lemoinei	single
Pride of Rochester	double
Diervilla florida hybrida	Hybrid weigela
Amabilis	pale pink
Candida	pure white
Eva Rathke	carmine red
Exochorda grandiflora	Pearl bush
Halesia tetraptera	Snowdrop tree
Kerria (Corchorus) japonica	Japanese rose
Flore-pleno	double yellow
Ligustrum Ibota	Japanese privet
Lonicera tatarica	Tartarian honeysuckle
Malus baccata	Siberian crab
Malus Nedzwickiana	Pink-flowering crab
Malus Scheideckeri	Double apple

Philadelphus coronarius	Mock orange
Boule d'Argent	double white
Lemoinei Erectus	single white
Rhodotypos kerrioides	White kerria
Ribes aureum	Flowering currant
Ribes sanguineum	Crimson currant
Sambucus canadensis	Common elder
Sambucus maxima pubescens	Giant elder
Sambucus nigra aurea	Golden elder
Spiræa prunifolia	Bridal wreath
Spiræa sorbifolia	Mountain ash-leaved spirea
Stellipeda	finer than type
Spiræa Van Houttei	Van Houtte's spirea
Syringa persica	Persian lilac
Syringa vulgaris	Common lilac
Marie Le Graye	single white
Madame Casimir-Perier	double white
President Grevy	double bluish
Souvenir de Louis Spaeth	single rosy lilac
Tamarix africana	Tamarisk
Viburnum opulus	High-bush cranberry
Viburnum opulus sterilis	Snowball
Viburnum plicatum	Japanese snowball
Viburnum lantana	Wayfaring tree
Xanthoceras sorbifolia	Chinese flowering chestnut

DECIDUOUS SHRUBS—For more or less

broad effects of white and colored bloom with foliage; early summer to early autumn.

Althea frutex	
(Hibiscus syriacus)	Rose of Sharon
Duchesse de Brabant	double deep rose
Jeanne d'Arc	double white
Rubis	single deep rose
Totus Albus	single white
Andromeda arborea	Sorrel tree
Aralia japonica	Japanese angelica
Aralia spinosa	Hercules club
Buddleia variabilis	
Veitchii	Veitch's buddleia
Ceanothus americanus	New Jersey tea
Clethra ainifolia	Sweet pepper bush
Colutea arborescens	Bladder senna
Hydrangea arborescens	Snowball hydrangea
Grandiflora	improved type
Hydrangea paniculata	Panicled hydrangea
Grandiflora	improved type
Hypericum prolificum	Prolific St. John's wort
Pavia matrostachya	Buckeye
Pæonia Moutan	Tree peony
Archiduc Ludovico	pink
Docteur Bowring	cerise
Regina Belgica	salmon
Reine des Violettes	violet
Rhus alba	White sumac
Rhus cotinus	Purple fringe
Rubus odoratus	Flowering raspberry
Spiræa bumalda	Crimson spirea

Anthony Waterer	magenta
Tamarix hispida æstivalis	Tamarisk
EVERGREEN SHRUBS—With especially good bloom.	
Andromeda floribunda	Lily-of-the-valley shrub
Azalea amæna	Evergreen azalea
Cratægus pyracantha (P. coccinea)	Fiery thorn
Lalandi	improved type
Kalmia latifolia	Mountain laurel
Mahonia aquifolium	Holly-leaved mahonia
Mahonia japonica	Japanese mahonia
Rhododendron Catawbiense	Catawba rhododendron
Boule de Neige	pure white
Fastuosum fl. pl.	double bluish
James Macintosh	deep rose
C. S. Sargent	cerise
Purpureum Grandiflorum	violet purple
Rhododendron maximum	Great laurel
EVERGREEN SHRUBS—For foliage only.	
Buxus sempervirens	Box
Euonymus japonica	Spindle tree
SHRUBS—With more or less showy fruit.	
Berberis Thunbergii	Japanese barberry
Berberis vulgaris	Common barberry
Callicarpa purpurea	Beauty fruit
Cornus florida	Dogwood

Cotoneaster buxifolia	Box-leaved cotoneaster
Cratægus crus-galli	Cockspur thorn
**Cratægus pyracantha* Lalandi	Fiery thorn improved type
Eleagnus edulis	Silver thorn
Eunonymus europæus	Burning bush
**Ilex aquifolia* Hodginsii	English holly improved type

(Hardy in sheltered spot.)

**Ilex opaca*	American holly
Laurus benzoin	Spice wood
Lonicera tatarica	Tartarian honeysuckle
**Mahonia aquifolium*	Holly-leaved mahonia
**Mahonia japonica*	Japanese mahonia
Malus baccata	Siberian crab
Malus Nedzwickiana	Pink-flowering crab
Malus Scheideckeri	Double apple
**Myrica cerifera*	Bayberry
**Phillyrea decora*	Brood-leaved filaria
Pyrus arbutifolia	Red chokeberry
Rhodotypos kerriodes	White kerria
Rhus typhina Laciniata	Staghorn sumac improved type
Sambucus canadensis	Common elder
Sambucus maxima pubescens	Giant elder
Sambucus plumosa laciniata	Plume Elder
Symphoricarpus	

*Evergreen.

"Garden pictures have the same beginning as paintings on canvas—composition, always with the idea of adapting nature rather than merely imitating it"

Mobil

racemosus	Snowberry
Symphoricarpus vulgaris	Coral berry
Viburnum acerifolium	Maple-leaved viburnum
Viburnum alnifolium	Withe rod
Viburnum cassinoides	High bush cranberry
Viburnum opulus	Wayfaring tree
Viburnum lantana	Hobble bush

SHRUBS—With fragrant blossoms.

Azalea nudiflora	Pinxter flower
Buddleia variabilis Veitchii	Veitch's buddleia
Calacanthus floridus	Strawberry shrub
Clethra ainifolia	Sweet pepper bush
Cratægus oxycantha	English hawthorn
Diervilla florida hybrida	Hybrid weigela
Ligustrum Ibota	Japanese privet
Lonicera fragrantissima	Fragrant upright honeysuckle
Magnolia conspicua	Chinese magnolia
Malus baccata	Siberian crab
Philadelphus coronarius	Mock orange
Ribes aureum	Flowering currant
Ribes Gordonianum	Gordon's currant
Rubus odoratus	Flowering raspberry
Sambucus canadensis	Common elder
Syringa vulgaris	Lilac
Viburnum lentago	Sheepberry

SHRUBS—Suitable for hedges.

Althæa frutex	Rose of Sharon
Berberis Thunbergii	Japanese barberry
Berberis vulgaris	Common barberry

Cratægus crus-galli	Cockspur thorn
Cratægus oxycantha	English hawthorn
Cydonia japonica	Japanese quince
Ligustrum ovalifolium	California privet
Rhamnus cathartica	Buckthorn

SHRUBS—That may be trained on a wall for a flat effect. These three are extraordinarily beautiful so trained.

Cratægus pyracantha	Fiery thorn
Cydonia japonica	Japanese quince
Robinia hispida	Rose acacia

SHRUBS—That are particularly suitable for planting on places at the seashore.

Baccharis halimifolia	Groundsel tree
Berberis Thunbergii	Japanese barberry
Enonymus japonicus	Spindle tree
Genista scoparia	Scotch broom
Hydrangea paniculata	Panicled hydrangea
Ligustrum ovalifolium	California privet
Prunus maritima	Beach plum

HARDY CLIMBING PLANTS—That bloom from May to early summer.

**Akebia quinata*	Akebia vine
Celastrus scandens	Common bittersweet
Celastrus orbiculatus	Oriental bittersweet
Clematis coccinea	Red leather flower
Clematis hybrida	Large-flowered hybrid clematis
Duchess of Edinburgh	double white
Jackmani	deep purple
Ville de Lyon	carmine

Clematis montana	Mountain clematis
**Clematis virginiana*	Virgin's bower
Ipomæa pandurata	Hardy moonflower
Lathyrus latifolius	Everlasting pea
White Pearl	pure white
**Lonicera Halleana*	Hall's honeysuckle
Wistaria sinensis	Chinese wistaria
Alba	pure white

HARDY CLIMBING PLANTS—That bloom from early summer to October.

**Apios tuberosa*	Groundnut
Aristolochia sipho	Dutchman's pipe
Bignonia (Tecoma) radicans	Trumpet creeper
**Clematis paniculata*	Japanese clematis
Dioscorea Batatas	Cinnamon vine
Lonicera sempervirens	Coral honeysuckle
Lycium barbarum	Matrimony vine
Polygonum multiflorum	Many-flowered knotweed
Pueraria Thunbergiana	Kudzu vine
Schizophragma hydrangoides	Climbing hydrangea

HARDY CLIMBING PLANTS—That are grown mostly for foliage and fruit.

Actinidia chinensis	Chinese actinidia
(Rarely blooms in cultivation.)	
Ampelopsis Veitchii	Virginia creeper
Ampelopsis quinquifolia	Boston ivy

*Fragrant.

Aristolochia sipho	Dutchman's pipe
Celastrus scandens	Common bittersweet
Celastrus orbiculatus	Oriental bittersweet
Euonymus radicans	Creeping euonymus
Variegata	green and white
Hedera helix	English ivy
Humulus lupulus	Hop
Aurea	yellow foliage
Lycium barbarum	Matrimony vine
Periploca græca	Silk vine
Vitis humulifolia	Hop-leaved vine

PERENNIALS—For low massed effects of white or colored bloom in spring, late March to early May.

Adonis amurensis	Amur bird's eye
Adonis vernalis	Spring bird's eye
Ajuga genevensis	Blue bugle
Ajuga reptans alba	White bugle
Alyssum saxatile	Basket of gold
Arabis albida	White rock cress.
Flore Pleno	double
Armeria maritima	Thrift
Aubrietia deltoidea	False wall cress
Eyri	dark violet
Liberty	soft violet
Lloyd Edwards	purple
Epimedium nivium	White barrenwort
Epimedium sulphureum	Yellow barrenwort
Erinus alpinus	Alpine erinus
Iberis sempervirens	Candytuft
Iris cristata	Crested iris

Iris pumila	Dwarf iris
Eburnea	white
Florida	lemon
Formosa	violet
Iris reticulata	Netted iris
Phlox amœna	Hairy phlox
Phlox procumbens	Creeping phlox
Phlox stellaria	Chickweed phlox
Phlox subulata	Moss pink
Lilacina	pale lilac
The Bride	white
Primula auricula	Auricula
Primula polyantha	Polyanthus
Munstead bunch primrose is a fine strain	
Primula veris	Cowslip
Superba	improved type
Primula vulgaris	English primrose
Viola odorata	Sweet violet
Alba	white
Californica	purple

PERENNIALS—For low massed effects of white or colored bloom from early May through June.

Anemone sylvestris	Snowdrop windflower
Aster alpinus	Alpine aster
Albus	pure white
Campanula carpatica	Carpathian harebell
Cerastium tomentosum	Snow-in-summer
Convallaria majalis	Lily-of-the-valley
Dianthus cæsius	Cheddar pink
Dianthus deltoides	Maiden pink
Dianthus plumarius	Grass pink

Excelsior	Double light rose
Her Majesty	white
Lithospermum prostatum	Gromwell
Heavenly Blue	turquoise
Phlox ovata	Mountain phlox
Polemonium reptans	Greek valerian
Primula cortusoides Sieboldii	Siebold's primrose
Robert Herold	deep rose, white eye
Pulmonaria saccharata	Lungwort
Ranunculus repens fl. pl.	Double creeping buttercup
Sedum acre	Golden moss
Thymus serpyllum	Creeping thyme
Coccinea	scarlet
Tiarella cordifolia	Foam flower
Veronica gentianoides	Gentian-leaved speedwell
Veronica rupestris	Rock speedwell

PERENNIALS—For low massed effects of white or colored flowers from late June to the end of summer.

Nierembergia rivularis	Cup flower
Œnothera cæspitosa	Evening primrose
Œnothera fruticosa	Sundrops
Youngii	improved type
Plumbago larpentae	Leadwort
Prunella (Brunella) grandiflora	Self-heal
Saponaria ocymoides	Soapwort

PERENNIALS—That throw up flower stalks twelve to thirty inches tall in April and May.

Aquilegia canadensis	Common American columbine
Aquilegia chrysantha	Yellow columbine
Aquilegia flabellata nana alba	Dwarf white columbine
Aquilegia vulgaris	Common European columbine
Asperula odorata	Sweet woodruff
Astilbe japonica	Astilbe
Queen Alexandra	rose
Dielytra (Dicentra) formosa	Plumy bleeding-heart
Dielytra (Dicentra) spectabilis	Common bleeding-heart
Doronicum caucasicum	Caucasian leopard's bane
Doronicum Clusii	Clusius' leopard's bane
Iris Germanica	German iris
Florentina	pearl color
Mrs. H. Darwin	white, violet markings
Madam Chereau	white, blue markings
Pallida Dalmatica	lavender
Plicata	violet purple
Iris ochroleuca	Straw-colored iris
Iris orientalis	Oriental iris
Snow Queen	white
Iris pseudacorus	Yellow water flag
Iris sibirica	Siberian iris
Alba	white, lilac markings

Lychnis dioica fl. pl.	Ragged Robin
Mertensia virginica	Virginian cowslip
Phlox divaricata	Wild sweet-william
Alba grandiflora	white
Laphami	improved blue
Saxifraga cordifolia	Heart-leaved saxifrage
Trollius asiaticus	Asiatic globeflower
Flore croceo	deep orange
Helios	yellow
Leuchtkugel	orange red
Trollius europæus	European globe flower

PERENNIALS—That are at their best in June and July.

Achillea millefolium roseum	Rosy milfoil
Achillea ptarmica	White milfoil
Boule de Neige	improved double
Achillea tomentosa	Yellow yarrow
Actæa spicata alba	Baneberry
Agrostemma coronaria	Mullein pink
Amsonia tabernæmontana	Amsonia
Anchusa italica	Sea bugloss
Dropmore	improved type
Anthemis tinctoria	Golden marguerite
Alba	cream-colored
Anthericum Liliago	St. Bernard's lily
Anthericum (Paridisea) liliastrum	St. Bruno's lily
Giganteum	improved type
Asphodelus luteus	Asphodel

Baptisia australis	False indigo
Campanula glomerata	Clustered bellflower
Dahurica	improved type
Campanula grandis	Great bellflower
Campanula persicifolia	Peach bells
Campanula rapunculoides	Blue bells
Campanula rotundifolia	Harebell
Campanula trachelium	Coventry bells
Centaurea montana	Hardy cornflower
Chrysanthemum maximum hybridum	Shasta daisy
Alaska	Burbank improvement
Chrysanthemum parthenium fl. pl.	Double feverfew
Clematis recta	Shrubby clematis
Coreopsis lanceolata	Hardy coreopsis
Grandiflora	improved type
Coronilla varia	Crown vetch
Delphinium chinense	Chinese larkspur
Album	white
Delphinium formosum	Old blue larkspur
Delphinium hybridum	Hybrid larkspur
Bella Donna	turquoise blue
Dictamnus fraxinella	Gas plant
Alba	white
Caucasicus	improved type
Gaillardia grandiflora	Blanket flower
Geranium cinerium album	White crane's bill
Geranium sanguineum	Red crane's bill

Geum chiloense (*coccineum*)	Scarlet avens
Mrs. F. Bradshaw	fine double
Geum Heldreichi	Orange avens
Hesperis matronalis	Sweet rocket
Alba	pure white
Hemerocallis flava	Custard lily
Hemerocallis Middendorfii	Middendorf's day lily
Hypericum Moserianum	St. John's wort
Inula montana	Mountain inula
Iris lavigata	Japanese iris
Sakata	three-petaled lavender
Shishi-odori	six-petaled purple
Tokyo	six-petaled white
Linum flavum	Yellow flax
Linum perenne	Hardy blue flax
Lupinus arboreus	Tree lupine
Snow Queen	pure white
Lupinus polyphyllus	Many-leaved lupine
Beauty	lavender
Nellie	white
Taplow Purple	purple
Yellow Boy	yellow
Lychnis chalcedonica	London pride
Lychnis viscaria fl. pl.	Double German catchfly
Ononis hircina	Rest harrow
Pæonia hybrida	Double hybrid peony
Festiva Maxima	white
Jenny Lind	rose
Richardson's Rubra	

Superba	red
Pæonia hybrida	Single hybrid peony
Dog Rose	pink
Pride of Langport	pink
Silver Rose	white
Pæonia officinalis	Old-fashioned peony
Alba	white
Rosea	rose
Rubra	deep red
Pæonia tenuifolia fl. pl.	Fine-leaved peony
Papaver orientale	Oriental poppy
Bracteatum	red, black markings
Goliath	scarlet
Mrs. Perry	salmon rose
Many new rose, salmon and mulberry shades.	
Penstemon barbatus Torreyi	Coral drops
Pentstemon glaber	Smooth pentstemon
Phlox suffruticosa	Early tall phlox
Hercules	lilac
Miss Lingard	white, with lilac eye
White Swan	pure white
Platycodon grandiflorum	Japanese bellflower
Album	white
Mariesi	dwarf blue
Polemonium Richardsonii	Jacob's ladder
Alba	white
Pyrethrum hybridum	Painted daisy
Carl Vogt	double white

James Kelway	single red
Mrs. William Kelway	single pink
Queen Mary	double pink
Snow White	single white
Ranunculus aconitifolius fl. pl.	Fair-maids-of-France
Ranunculus acris fl. pl.	Double buttercup
Salvia pratensis	Meadow sage
Scabiosa caucasica	Blue bonnet
Spiræa filipendula fl. pl.	Double dropwort
Stachys Betonica	Wood betony
Stachys lanata	Woolly woundwort
Stokesia cyanea	Stokes' aster
Thalictrum aquilegifolium	Meadow rue
Superbum	double mauve
Tradescantia virginica	Spider lily
Valeriana officinalis	Garden heliotrope
Veronica spicata	Speedwell
Yucca filamentosa	Adam's needle

PERENNIALS—That are at their best between late July and early September.

Acanthus mollis	Bear's breech
Aconitum napellus	Monkshood
Albus	white
Adenophora polymorpha	Gland bellflower
Adenophora Potannini	Potannini's bellflower
Asclepias tuberosa	Butterfly weed
Bocconia cordata	Plume poppy
Boltonia asteroides	White false chamomile

Boltonia latisquama	Pink false chamomile
Calimeris incisa	Starwort
Centaurea macrocephala	Golden thistle
Centranthus ruber	Red valerian
Cimicifuga racemosa	Snake root
Clematis Davidiana	David's clematis
Coreopsis rosea	Pink coreopsis
Echinops banaticus	Globe thistle
Erigeron glabellus	Fleabane
Eryngium amethystum	Sea holly
Eupatorium ageratoides	Thoroughwort
Eupatorium cælestinum	Blue thoroughwort
Funkia cærulea	Blue day lily
Funkia Fortunei	Fortune's day lily
Funkia subcordata	White day lily
Gypsophila paniculata	Baby's breath
Helianthus decapetalus	Hardy sunflower
Soleil d'Or	double
Helianthus mollis	Hairy sunflower
Heuchera sanguinea	Alum root
Pluie de Feu	red
Virginal	cream white
Hibiscus moscheutos	Swamp mallow
Crimson Eye	white, red center
Liatris pycnostachya	Gay feather
Lobelia cardinalis	Cardinal flower
Lysimachia clethroides	White loosestrife
Lythrum roseum	Rose loosestrife
Superbum	improved type
Monarda didyma	Oswego tea
Pardanthus sinensis	Blackberry lily

Penstemon ovatus	Ovate pentstemon
Phlox paniculata	Panicled phlox
Antonin Mercier	lilac
Coquelicot	scarlet
Le Prophète	rose
Mrs. Jenkins	white
Siebold	improved Coquelicot
Vesuvius	cerise
Pyrethrum uliginosum	Giant daisy
Physostegia virginica	Obedient plant
Alba	white
Polygonum cuspidatum	Giant knotweed
Potentilla atrosanguinea	Scarlet potentilla
Camellia	double red
Miss Wilmott	cerise
Rudbeckia laciniata fl. pl.	Golden glow
Rudbeckia (*Echinacea*) *purpurea*	Pink cone flower
Sedum Sieboldi	Lover's wreath
Sedum spectabilis	Live-forever
Senecio pulcher	Groundsel
Statice eximia	Lilac sea lavender
Statice latifolia	Giant sea lavender
Veronica incana	Hoary-leaved speedwell
Veronica longifolia subsessilis	Long-leaved speedwell

PERENNIALS—That bloom in September and October.

Aconitum autumnale	Autumn monkshood
Anemone japonica	Japanese anemone

Alba	single white
Queen Charlotte	semi-double pink
Whirlwind	semi-double white
Aster acris	Dwarf violet aster
Aster lævis	Smooth-leaved aster
Aster novæ angliæ	New England aster
Beauty of Colwell	semi-double lavender
Mrs. F. W. Raynor	crimson purple
Chrysanthemum indica	Pompon chrysanthemum
Baby	lemon
Julie Lagravère	red
All old-fashioned kinds very hardy.	
Gentiana Andrewsii	Closed gentian
Helenium autumnale	Sneezewort
Riverton Beauty	lemon
Riverton Gem	reddish orange
Helianthus Maximiliani	Maximilian's sunflower
Helianthus rigidus	Hardy sunflower
Miss Mellish	golden
Wolley Dod	dark yellow
Tricyrtis hirta	Japanese toad lily
PERENNIALS—With evergreen foliage or virtually so.	
**Agrostemma coronaria*	Mullein pink
Ajuga genevensis	Blue bugle
Ajuga reptans alba	White bugle
**Alyssum saxatile*	Basket of gold
Anthemis tinctoria	Golden marguerite
**Arabis albida*	White rock cress
Arenaria cæspitosa	Sandwort
Armeria maritima	Thrift

**Artemisia pontica*	Roman wormwood
**Aubrietia deltoidea*	False wall cress
**Cerastium tomentosum*	Snow-in-summer
Dianthus deltoides	Maiden pink
**Dianthus plumarius*	Grass pink
Geum chiloense	Red avens
Geum Heldreichi	Orange avens
Helianthemum vulgare	Rock rose
Helleborus niger	Christmas rose
Hesperis matronalis	Sweet rocket
Heuchera sanguinea	Red alum root
Iberis sempervirens	Hardy candytuft
Pachysandra terminalis	Japanese evergreen spurge
Phlox amœna	Hairy phlox
Phlox divaricata (canadensis)	Wild sweet-william
Phlox ovata	Mountain phlox
Phlox subulata	Moss pink
Primula auricula	Auricula
Primula polyantha	Polyanthus
Primula veris	Cowslip
Primula vulgaris	English primrose
Ranunculus repens fl. pl.	Creeping double buttercup
Santolina Chamaecyparissus	Lavender cotton
Satureia montana	Winter savory
Saxifraga cordifolia	Heart-leaved saxifrage
Sedum album	White stonecrop
Sempervivum tectorum	House leek

"Thus April might disclose a drift of Arabis albida as a striking early note"

Mau

**Stachys lanata*	Woolly woundwort
Thymus serpyllum	Creeping thyme
Tiarella cordifolia	Foam flower
Yucca filamentosa	Adam's needle
**Veronica incana*	Hoary-leaved speedwell
Veronica rupestris	Rock speedwell
Vinca minor	Periwinkle
Alba	white

*Gray, or grayish, foliage.

PERENNIALS—That, in species forms, are suitable for naturalizing, or planting in broad naturalistic effect.

**Achillea tomentosa*	Yellow yarrow
Acanthus mollis	Bear's breech
Aconitum autumnale	Autumn monkshood
Actæa spicata	Baneberry
Alba	white berries
Rubra	red berries
Adonis amurensis	Amur bird's eye
Adonis vernalis	Spring bird's eye
Aegopodium podograria	Bishop's weed
**Ajuga genevensis*	Blue bugle
**Ajuga reptans alba*	White bugle
**Alyssum saxatile*	Basket of gold
Amsonia Tabernæmontana	Amsonia
Anemone pennsylvanica	Pennsylvanian anemone
Anemone japonica	Japanese anemone
Anemone Pulsatilla	Pasque flower
Anthericum liliago	St. Bernard's lily
Anthericum liliastro	St. Bruno's lily

**Arabis albida*	White rock cress
**Arenaria montana*	Sandwort
**Armeria maritima*	Thrift
**Aquilegia canadensis*	Common American columbine
Aquilegia chrysantha	Yellow columbine
Aquilegia vulgaris	Common European columbine
Ascelpias tuberosa	Butterfly weed
Asperula odorata	Sweet woodruff
Asphodelus luteus	Asphodel
**Aster alpinus*	Alpine aster
Aster acris	Dwarf violet aster
Aster lævis	Smooth-leaved aster
Aster novæ angliæ	New England aster
Baptisia australis	False indigo
Bellis perennis	English daisy
Bocconia cordata	Plume poppy
Boltonia asteroides	White false chamomile
Boltonia latisquama	Pink false chamomile
**Campanula carpatica*	Carpathian harebell
Campanula glomerata	Clustered bellflower
Campanula rapunculoides	Blue bell
Campanula rotundifolia	Harebell
Cassia marilandica	American senna
Centaurea montana	Hardy cornflower
Cimicifuga racemosa	Snakeroot
Clematis recta	Shrubby clematis
Convallaria majalis	Lily-of-the-valley
Coronilla varia	Crown vetch

**Dianthus deltoides*	Maiden pink
**Dianthus neglectus*	Glacier pink
Dielytra formosa	Plumy bleeding-heart
Doronicum caucasicum	Leopard's bane
Epimedium niveum	Barrenwort
Erigeron coulteri	Fleabane
**Erinus alpinus*	Alpine erinus
Eupatorium ageratoides	Thoroughwort
Gentiana Andrewsii	Closed gentian
Geranium grandiflorum	Lilac crane's bill
**Geum coccineum*	Red avens
**Geum Heldreichi*	Orange avens
Helianthemum vulgare	Rock rose
Helianthus tuberosus	Jerusalem artichoke
Helenium autumnale	Sneezewort
Helleborus niger	Christmas rose
Heracleum giganteum	Giant parsnip
Hesperis matronalis	Sweet rocket
Hemerocallis flava	Tawny day lily
Hibiscus moscheutos	Swamp mallow
Hieracium aurantiacum	Hawkweed
Hypericum Moserianum	St. John's wort
**Iberis sempervirens*	Hardy candytuft
Inula montana	Mountain inula
**Iris cristata*	Crested iris
Iris germanica	German iris
Iris lævigata	Japanese iris
Iris ochroleuca	Straw-colored iris
Iris pumila	Dwarf iris
Iris sibirica	Siberian iris
Iris pseudacorus	Yellow water flag

Iris versicolor	Blue water flag
Lamium maculatum	Babe-in-the-cradle
Liatris pycnostachya	Gay feather
**Linum perenne*	Hardy blue flax
Lobelia cardinalis	Cardinal flower
Lysimachia clethroides	White loosestrife
Lysimachia nummularia	Creeping Jenny
Lychnis flos cuculi	Cuckoo flower
Lychnis semperflorens	Rose campion
Lychins vespertina	White campion
Lychnis viscaria	German catchfly
Lythrum roseum	Rose loosestrife
Mertensia virginica	Virginian cowslip
Mimulus luteus	Yellow monkey-flower
Monarda didyma	Oswego tea
Monarda fistulosa	Wild bergamot
Myosotis palustris semperflorens	Forget-me-not
**Oenothera cæspitosa*	White evening primrose
Oenothera fruticosa	Sundrops
Ononis hircina	Rest harrow
Opuntia polycantha	Prickly pear
Orobus superbus	Bitter vetch
Cypripedium acaule	Pink moccasin flower
Cypripedium spectabile	Showy moccasin flower
Pachysandra terminalis	Japanese evergreen spurge
Pardanthus (Belemcanda) sinensis	Blackberry lily
**Penstemon barbatus Torreyii*	Torrey's pentstemon

Petasites japonicus	Japanese coltsfoot
**Phlox amœna*	Hairy phlox
**Phlox divaricata*	Wild sweet-william
**Phlox ovata*	Mountain phlox
Phlox paniculata	Panicled phlox
	(Old-fashioned pink and white)
Phlox pilosa	Downy phlox
**Phlox subulata*	Moss pink
Physostegia virginica	Obedient plant
**Plumbago larpentæ*	Leadwort
Podophyllum peltatum	May apple
Polygonatum majus	Solomon's seal
**Polemonium reptans*	Greek valerian
Polygonum cuspidatum	Giant knotweed
**Potentilla formosa*	Red cinquefoil
**Potentilla pyrenaica*	Pyrenean cinquefoil
Primula elatior	Oxlip
Primula japonica	Japanese primrose
Primula veris	Cowslip
Primula vulgaris	English primrose
Rhexia virginica	Meadow beauty
Rudbeckia purpurea	Pink cone flower
Salvia pratensis	Meadow sage
**Sanguinaria canadensis*	Bloodroot
Sanguisorba canadensis	Canadian burnet
**Saponaria ocymoides*	Soap wort
**Saxifraga cordifolia*	Heart-leaved saxifrage
**Saxifraga virginiensis*	Rock saxifrage
**Sedum acre*	Golden moss
**Sedum album*	White stonecrop
**Silene pennsylvanica*	Wild pink

Smilacina racemosa	False Solomon's seal
Tanacetum vulgare	Tansy
Thalictrum adiantifolium	Meadow rue
**Thymus lanuginosus*	Woolly-leaved thyme
**Thymus serpyllum*	Creeping thyme
**Tiarella cordifolia*	Foam flower
Tradescantia virginica	Spider lily
Tricyrtis hirta	Japanese toad lily
Trillium grandiflorum	White wood lily
Trollius europæus	European globe flower
Tussilago farfara	Coltsfoot
Valeriana officinalis	Garden heliotrope
Veronica rupestris	Rock speedwell
Veronica spicata	Spiked speedwell
Vinca minor	Periwinkle
Viola pedata	Bird's foot violet
**Yucca filamentosa*	Adam's needle

*Well adapted for pockets of soil on rocky ground.

PERENNIALS—That will do well in partial shade.

Aconitum napellus	Monkshood
Aconitum autumnale	Autumn monkshood
Actæa spicata	Baneberry
Aegopodium podograria	Bishop's weed
Ajuga genevensis	Blue bugle
Ajuga reptans alba	White bugle
Anemone pennsylvanica	Pennsylvanian anemone
Anemone japonica	Japanese anemone
Aquilegia canadense	Common American

	columbine
Asperula odorata	Sweet woodruff
Chelone Lyoni	Pink turtle-head
Cimicifuga racemosa	Snakeroot
Convallaria majalis	Lily-of-the-valley
Cypripedium acaule	Pink moccasin flower
Cypripedium pubescens	Yellow moccasin flower
Cypripedium spectabile	Showy moccasin flower
Dielytra spectabilis	Bleeding-heart
Dodecatheon Meadi	Shooting-star
Doronicum austriacum	Austrian leopard's bane
Eryngium amethystinum	Sea holly
Funkia cærulea	Blue day lily
Funkia Fortunei	Fortune's day lily
Funkia subcordata	White day lily
Gentiana Andrewsii	Closed gentian
Globularia tricosantha	Globe daisy
Helleborus niger	Christmas rose
Hesperis matronalis	Sweet rocket
Hepatica triloba	Liverwort
Lobelia cardinalis	Cardinal flower
Lysimachia nummularia	Creeping Jenny
Marshallia trinervis	Marshallia
Monarda didyma	Oswego tea
Myosotis semperflorens	Forget-me-not
Pachysandra terminalis	Japanese spurge
Phlox divaricata	Wild sweet-william
Podophyllum peltatum	May apple
Polemonium reptans	Greek valerian
Polemonium Richardsonii	Jacob's ladder

Primula japonica	Japanese primrose
Primula vulgaris	English primrose
Prunella grandiflora	Large flowered self-heal
Prunella incisa	Rose-flowered self-heal
Saxifraga cordifolia	Heart-leaved saxifrage
Saxifraga umbrosa	London pride
Sedum album	White stonecrop
Smilacina racemosa	False Solomon's seal
Tiarella cordifolia	Foam flower
Tricyrtis hirta	Japanese toad lily
Vinca minor	Periwinkle

PERENNIALS—That are suitable for planting by the waterside or in other moist places.

Anemone japonica	Japanese anemone
Anemone pennsylvanica	Pennsylvanian anemone
Astrantia carniolica	Masterwort
Calthra palustris	Marsh marigold
Flore plene	fine double
Cornus canadensis	Bunchberry
Gentiana Andrewsii	Closed gentian
Houstonia serpyllifolia	Bluets
Iris lævigata	Japanese iris
Iris pseudacorus	Yellow water flag
Lobelia cardinalis	Cardinal flower
Lythrum roseum	Rose loosestrife
Marshallia trinervis	Marshallia
Mimulus luteus	Yellow monkey flower
Mimulus ringens	Blue monkey flower
Myosotis semperflorens	Forget-me-not
Petasites japonicus	Japanese coltsfoot
Physostegia virginica	Obedient plant

Polygonum cuspidatum	Giant knotweed
Primula japonica	Japanese primrose
Primula vulgaris	English primrose
Rhexia virginica	Meadow beauty
Spiræa ulmaria	Meadow sweet
Thalictrum adiantifolium	Meadow rue
Trollius asiaticus	Asiatic globe flower
Trollius europæus	European globe flower
Veronica repens	Creeping speedwell

BIENNIALS—That are good for one season in perfection.

Althæa rosea	Hollyhock

Single kinds are best.

Antirrhinum majus	Snapdragon
Bellis perennis	English daisy
Alice	double pale pink
The Bride	double white
Campanula Medium	Canterbury bell
**Campanula pyramidalis*	Chimney bellflower
Dianthus barbatus	Sweet-william
Newport Pink	salmon
Dianthus "Marguerite"	Garden carnation
***Digitalis ambigua*	Yellow foxglove
***Digitalis purpurea*	Common foxglove
***Myosotis dissitiflora*	Forget-me-not
Alba	white
Papaver nudicaule	Iceland poppy
Tragopogon porrifolius	Oyster plant

(A vegetable, but beautiful in gardens.)

**Fine for naturalizing

*Best in pots

Verbascum	
Wiedmannianum	Violet mullein
ANNUALS—For bold colors; low effects.	massing in white and
Ageratum mexicanum	Floss flower
Blue Perfection	dark blue
Princess Pauline	sky blue
Alyssum maritimum	Sweet alyssum
Little Gem	very compact
Brachycome iberidifolia	Swan River daisy
Cacalia coccinea	Flora's paintbrush
Calendula officinalis	Pot marigold
Orange King	double orange
Pure Gold	double yellow
Callirhoë involucrata	Poppy mallow
Callistephus hortensis	China aster
Non Plus Ultra	dwarf type
Celosia cristata	Cockscomb
Queen of the Dwarfs	dark rose
Convolvulus minor	Dwarf morning-glory
Roseus Superbus	pink
Delphinium ajacis	Larkspur
Dwarf Rocket	double various
Dianthus chinensis	Chinese pink
Crimson Belle	single red
Fireball	double red
Salmon King	double salmon
Salmon Queen	single salmon
Snowball	double white
Vesuvius	single vermilion

Violet Queen	double violet
Dimorphotheca aurantiaca	Namaqualand daisy
Very fine new hybrids.	
Eschscholtzia californica	California poppy
Alba	white
Dainty Queen	pink
Godetia (Oenothera) Whitneyi	Godetia
Duchess of Albany	white
Gloriosa	red
Rosamond	pale pink
Gomphrena globosa	Globe amaranth
Nana Compacta Alba	dwarf white
Heliotropium peruvianum	Heliotrope
Lemoine's Giant	improved type
Iberis coronaria	Rocket candytuft
Empress	white
Lobelia erinus	Lobelia
Emperor William	sky blue
Prima Donna	maroon
White Gem	white
Matthiola incana annua	Ten-weeks' stock
Dwarf Bouquet	dwarf type
Nemophila insignis grandiflora	Love grove
Nigella damascena	Love-in-a-mist
Miss Jekyll	improved type
Portulaca splendens	Sun plant
Especially double varieties.	

Petunia nyctaginiflora hybrida	Hybrid petunia
Rosy Morn	pink, white throat
Star	rose, white throat
Snowball	compact white
Veilchenblau	velvety purple
White Pearl	white
Phlox Drummondi	Drummond's phlox
Nana compacta	dwarf type
Tagetes patula	French marigold
Little Brownie	single yellow and maroon
Tom Thumb	double lemon
Tom Thumb	double yellow
Verbena erinoides	Moss verbena
Verbena hybrida	Hybrid verbena
Viola cornuta hybrida	Tufted pansy
Bridal Morn	violet
Lutea Splendens	yellow
Maggie Mott	lavender
Swan	white
Viola tricolor hybrida	Pansy
Emperor William	blue
Faust	black
Golden Yellow	yellow
Snow Queen	white
Viscaria cardinalis	Rose of Heaven
Zinnia Haageana	Mexican zinnia
Zinnia elegans	Common zinnia
Red Riding Hood	dwarf red

ANNUALS—For bold massing in white and col-

ors; medium to high effects.

Amaranthus cordatus	Love-lies-bleeding
Calliopsis tinctoria	Calliopsis
Nigra Speciosa	maroon
Callistephus hortensis	China aster
Daybreak	shell pink branching
Purity	white branching
Violet King	violet branching

Queen of the Market is a fine early strain.

Celosia cristata	Cockscomb
Empress	crimson
Celosia plumosa	Plumy cockscomb
Golden Plume	yellow
Centaurea americana	Basket flower
Centaurea cyanus	Cornflower

Blue and mauve are best.

Centaurea imperialis	Sweet sultan
Centaurea suaveolens	Grecian cornflower
Cheiranthus Cheiri	Wallflower
Paris Extra Early	various
Chrysanthemum inodorum plenissinum	Double mayweed
Chrysanthemum carinatum hybridum	Summer marguerite
Evening Star	golden yellow
Morning Star	cream, yellow center
Northern Star	white, yellow center
Clarkia elegans	Clarkia
Salmon Queen	double salmon
Cosmos bipinnatus	Mexican aster
Klondike	yellow

Lady Lenox	pink
Dahlia rosea	Single dahlia
Giant Perfection is a good tall strain.	
Jules Chretien is a good dwarf strain.	
Delphinium ajacis	Larkspur
Gaillardia amblyodon	Red blanket-flower
Gypsophila elegans	Baby's breath
Alba Grandiflora	improved type
Hunnemannia fumariæfolia	Bush eschscholtzia
Impatiens Balsamina	Common balsam
Prince Bismarck	double salmon
Lavatera trimestris	Annual mallow
Grandiflora rosea	improved type
Linaria maroccana	Morocco toad flax
Very fine hybrids.	
Linum coccineum	Scarlet flax
Matthiola bicornis	Evening-scented stock
Matthiola incana annua	Ten-weeks' stock
Colossal is a good early strain.	
Continuity is a good late strain.	
Nicotiana affinis	Tuberose-flowered tobacco
Sanderæ hybrids	white to deep rose
Nicotiana sylvestris	Tasseled tobacco
Papaver glaucum	Tulip poppy
Papaver rhœas	Corn poppy
Shirley	various
Papaver somniferum hybridum	Opium poppy
Cardinal	double red

Charles Darwin	single dark mauve
Shell Pink	double pink
White Swan	double white
Rhodanthe Manglesii	Swan River everlasting
Salvia farinacea	Mealy sage
Salvia splendens	Scarlet sage
Saponaria vaccaria	Pink soapwort
Scabiosa atropurparea	Mourning bride

Especially flesh pink, rose and lilac.

Schizanthus	
Wisetonensis	Butterfly flower

Dwarf large-flowered.

Tagetes erecta	African marigold
Phlox cuspidata	Star phlox
Phlox Drummondi	Drummond's phlox
Vinca rosea	Madagascar periwinkle
Xeranthemum annuum	Immortelle

ANNUALS—Tall kinds for bold special effects.

Cleome pungens	Spider flower
Datura cornucopia	Trumpet flower
Double Golden	yellow
Helianthus annuus	Sunflower
Russian	improved type
Helichrysum monstrosum	Strawflower

Very fine planted by colors.

Kochia tricophylla	Summer cypress
Mirabilis jalapa	Four-o'clock
Polygonum orientale	Prince's feather

ANNUALS—That are especially good for cutting.

******Alyssum maritimum*	Sweet alyssum
Arctotis grandis	African daisy
Calendula officinalis	Pot marigold
Callistephus hortensis	China aster
Queen of the Market	early bloom
Peony-flowered	August bloom
Late branching	September bloom
Centaurea americana	Basket flower
Centaurea cyanus	Cornflower
******Centaurea imperialis*	Sweet sultan
******Centaurea suaveolens*	Grecian cornflower
Cheiranthus Cheiri	Wallflower
Chrysanthemum inodorum plenissima	Double mayweed
Chrysanthemum carinatum hybridum	Summer marguerite
Clarkia elegans	Clarkia
Cosmos bipinnatus	Mexican aster
Dahlia rosea	Single dahlia
Delphinium ajacis	Larkspur
Dianthus chinensis	Chinese pink
Gaillardia amblyodon	Red blanket-flower
Gypsophila elegans	Baby's breath
Helichrysum monstrosum	Strawflower
******Heliotropium peruvianum*	Heliotrope
Iberis coronarium	Candytuft
Jacobæa (Senecio) elegans fl. pl.	Groundsel
******Lathyrus odoratus*	Sweet pea

"Immense ones of marvelous form and growing on plants exceeding eight feet in height are only to be had as the result of cultural skill"

Black Knight Spencer	maroon
Blanche Ferry Spencer	pink and white
Frank Dolby	lavender
Gladys Unwin	pale rose
Primrose Spencer	yellow
White Spencer	white
Lavatera trimestris	Annual mallow
Linaria maroccana	Morocco toadflox
**Matthiola bicornis*	Evening-scented stock
**Matthiola incana annua*	Ten-weeks' stock
Especially white, flesh and mauve.	
**Nicotiana affinis*	Tuberose-flowered tobacco
Nicotiana sylvestris	Tasseled tobacco
Nigella damascena	Love-in-a-mist
Papaver glaucum	Tulip poppy
Papaver Rhœas (Shirley)	Shirley poppy
Papaver somniferum	Opium poppy
Phlox Drummondi	Drummond's phlox
Rehmannia angulata	Rehmannia
Blooms first year if started early.	
**Reseda odorata*	Mignonette
Rhodanthe Manglesii	Swan River everlasting
Salpiglossis sinuata	Painted tongue
Saponaria vaccaria	Pink soapwort
Scabiosa atropurpurea	Mourning bride
Schizanthus Wisetonensis	Butterfly flower
Tagetes erecta	African marigold

**Tropæolum majus*	Nasturtium
Vinca rosea	Madagascar periwinkle
Viola cornuta hybrida	Tufted pansy
**Viola tricolor hybrida*	Pansy
Viscaria cardinalis	Rose of Heaven
Viscaria cærulea	Blue viscaria
Zinnia elegans	Common zinnia

*Fragrant.

ANNUALS—That are climbers.

Adlumia cirrhosa	Allegheny vine

Biennial, but blooms first year.

Cardiospormum Halicacabum	Balloon vine
Cobæa scandens	Cup-and-saucer vine
Coccinea indica	Scarlet-fruited climber
Cucurbita Pepo	Gourd
Dolichos Lablab	Hyacinth bean
Darkness	purple
Daylight	white
Echinocystis lobata	Wild cucumber
Ipomæa coccinea	Red morning-glory
Ipomæa grandiflora	Moonflower
Ipomæa imperialis	Japanese morning-glory
Ipomæa major	Common morning-glory
Ipomæa Quamoclit	Cypress vine
Ipomæa rubra coerulea	Heavenly Blue morning-glory
Ipomæa setosa	Brazilian morning-glory
Maurandia Barclayana	Maurandia
Momordica balsamina	Balsam apple
Momordica charantia	Balsam pear

Phaseolus multiflorus	Scarlet runner
Phaseolus multiflorus papilio	Butterfly runner
Thunbergia alata	Black-eyed Susan
Tropæolum canariense	Canary-bird vine
Tropæolum Lobbianum	Lobb's nasturtium
Asa Gray	pale yellow
Brilliant	scarlet
Roi des Noirs	garnet
Tropæolum majus	Tall nasturtium

BULBS AND TUBERS—For spring bloom, late February to June. Plant all of them in autumn.

Allium Moly	Golden garlic
Anemone thalictroides	Rue anemone
Bulbicodium citrinus	Hoop petticoat daffodil
Bulbicodium gracilis	Rush-leaved daffodil
Camassia Cusickii	Cusick's quamash
Camassia esculenta	Indian quamash
Chionodoxa Luciliæ	Glory-of-the-snow
Chionodoxa sardensis	Sardian-glory-of-the-snow
Crocus aureus	Yellow crocus
Crocus vernus	Spring crocus
Hero	purple
May	white
Crocus versicolor	Cloth of silver crocus
Eranthis hyemalis	Winter aconite
Erythronium albidum	White dogtooth violet
Erythronium americanum	Common dogtooth violet
Erythronium citrinum	Yellow dogtooth violet

Fritillaria imperialis	Crown imperial
Fritillaria meleagris	Guinea-hen flower
White is finest.	
Galanthus Elwesii	Giant snowdrop
Galanthus nivalis	Common snowdrop
Galanthus plicatus	Crimean snowdrop
Hyacinthus amethystinus	Amethyst hyacinth
Hyacinthus orientalis	Common hyacinth
(Pink) Baron von Thyll	single pink
Bird of Paradise	single yellow
Czar Peter	single blue
La Grandesse	single white
Lord Wellington	double pink
Minerva	double yellow
Miss Nightingale	double white
Van Speyk	double blue
Leucojum æstivum	Summer snowflake
Leucojum vernum	Spring snowflake
Muscari Botryoides Album	Grape hyacinth white
Narcissus biflorus	Primrose peerless
Narcissus incomparabilis	Star daffodil
Barrii Conspicuus	yellow, red-rimmed cup
Orange Phoenix	double, orange shades
Silver Phoenix	double cream
Narcissus Jonquila	Jonquil
Narcissus odorus	Campernelle jonquil
Narcissus polyanthus	Nosegay daffodil

Queen of Yellows	yellow, orange cup
Hardy if well protected.	
Narcissus poetaz	Poetaz daffodil
Narcissus poeticus	Poet's narcissus
Gardenia	double
Narcissus pseudo-narcissus	Trumpet daffodil
Emperor	yellow
Empress	yellow, white perianth
Narcissus Telemonius plenus	Double yellow daffodil
Ornithogallum nutans	Drooping Star of Bethlehem
Ornithogallum umbellatum	Johnny-go-to-bed
Puschkinia scilloides	Lebanon squill
Sanguinaria canadensis	Bloodroot
Scilla bifolia	Taurus squill
Scilla hispanica (campanulata)	Spanish wood hyacinth
Scilla nutans	English wood hyacinth
Scilla sibirica	Siberian squill
Triteleia uniflora	Spring star flower
Tulipa Clusiana	Little lady tulip
Tulipa gesneriana hyb.	Cottage (single) tulip
Black Chief	maroon
Blushing Bride	pink and white
Bouton d'Or	yellow
Glare of the Garden	dark red
Inglescombe Pink	rose
Mrs. Moon	yellow

Orange King	orange, tinged scarlet
The Fawn	pinkish fawn
Vitellina	yellow
Tulipa gesneriana hyb.	Darwin (single) tulip
Ariadne	crimson
Baronne de la Tonnaye	rose
Clara Butt	rose
Early Dawn	rosy violet
King Harold	maroon
Peter Barr	maroon
Salmon King	salmon
The Sultan	deep maroon
Violet Queen	light violet
Tulipa gesneriana dracontia	Parrot tulip
Monstre Cramoisie	crimson
Margraf van Baden	yellow and scarlet
Lutea Major	yellow
Tulipa Greigii	Greig's tulip
Tulipa Kaufmanniana	Kaufmann's tulip
Aurea	yellow, streaked scarlet
Tulipa oculus solis	Sun's eye tulip
Tulipa suaveolens hyb.	Early-flowering tulip
Blue Flag	double violet
Cottage Maid	single rose, flushed white
Couronne d'Or	double yellow, flushed orange
Fire Dome	double scarlet

La Candeur	double white
Maas	single scarlet
Ophir d'Or	single yellow
Pottebakker White	white
Rose d'Amour	double flesh pink
Duc van Thol	dwarf early type
Tulipa sylvestris	Florentine tulip
Tulipa Tubergeniana	Tubergen's tulip

BULBS AND TUBERS—For summer bloom, June to early autumn. Those marked * are not reliably hardy; in the North they must be planted in spring and taken up in autumn, though in favored positions a few are hardy with ample protection.

**Allium neapolitanum*	Neapolitan garlic
**Alstræmeria chilensis*	Peruvian lily
**Amaryllis Belladonna*	Belladonna lily
**Canna hybrida*	Hybrid canna
Alsace	cream
Buttercup	yellow
Duke of Marlborough	dark crimson
Jean Tissot	vermilion
Colchicum autumnale	Meadow saffron
Alba	white
Crocus sativus	Saffron crocus
Crocus speciosus	Blue autumn crocus
**Dahlia rosea*	Single dahlia
Anemone	white
St. George	yellow
Wildfire	scarlet
**Dahlia rosea hyb.*	Cactus dahlia

Countess of Lonsdale	salmon pink
Flora	white
Kriemhilde	pink, shaded white
Mrs. George Stevenson	yellow
Roland von Berlin	red
**Dahlia rosea hyb.*	Decorative dahlia
Black Beauty	maroon
Eureka	deep rose
Perle	white
Sylvia	mauve
**Dahlia rosea hyb.*	Pompon dahlia
Darkness	maroon
Snowclad	white
Vivid	scarlet
**Dahlia rosea hyb.*	Show dahlia
Charles Lanier	yellow
Hero	red
John Walker	white
Susan	shell pink
**Galtonia candicans*	Summer-flowering hyacinth

(Hardy with protection.)

**Gladiolus brenchleyensis*	Vermilion gladiolus
**Gladiolus Colvillei*	Colville's gladiolus
Ackerman	salmon
Bride	white
Peach Blossom	light pink

(Early flowering; hardy with protection.)

**Gladiolus gandavensis*	Ghent gladiolus

Augusta	white
Canary Bird	yellow
Contrast	scarlet
Octoroon	salmon
**Gladiolus hybridus*	
Childsii	Childs' gladiolus
America	flesh
Blanche	white
Doctor Sellew	crimson
Henry Gilman	salmon-scarlet
**Gladiolus hybridus*	
Groff	Groff's gladiolus
Blue Jay	purplish blue
Dawn	pale salmon
La Luna	pale yellow
Mrs. Francis King	salmon rose
Victory	pale yellow
**Gladiolus hybridus*	
Lemoinei	Lemoine's gladiolus
Lafayette	cream, flushed rose
**Gladiolus nanceianus*	Giant gladiolus
**Gladiolus primulinus*	Maid-of-the-mist gladiolus
**Gladiolus princeps*	Princeps gladiolus
Salem	salmon pink
**Incarvillea Delavayi*	Hardy gloxinia (Hardy with protection)
Iris anglica	English iris
Mont Blanc	white
Othello	dark blue
Proserpine	purple

Iris hispanica	
(Xiphium)	Spanish iris
Belle Chinoise	yellow
British Queen	white
King of the Blues	dark blue
**Ixia hybrida*	African corn lily
Queen of Roses	cerise
Vulcan	red
**Ixiolirion tataricum*	Ixiolirion
Lilium auratum	Gold-banded lily
Lilium Brownii	Brown's lily
Lilium canadense	Canada lily
Lilium candidum	Madonna lily
Lilium chalcedonicum	Scarlet Martagon lily
Lilium croceum	Orange lily
Lilium dauricum	Davurian lily
Diadem	crimson, yellow band
Sappho	orange, tipped red
Lilium elegans	Thunbergian lily
Alice Wilson	pale yellow
Batemanniae	late apricot
Orange Queen	orange
Prince of Orange	early apricot
Lilium Hansoni	Hanson's lily
Lilium Henryi	Henry's lily
Lilium Martagon	Martagon lily
Album	white
Lilium monadelphum	Caucasian lily
Lilium pardalinum	Panther lily
Lilium speciosum	Handsome lily
Album	white

Melpomene	pink
Lilium superbum	Swamp lily
Lilium tenuifolium	Coral lily
Lilium testaceum	Nankeen lily
Lilium tigrinum	Tiger lily
Splendens	improved type
**Montbretia crocosmæflora*	Blazing star
**Ornithogallum arabicum*	Arabian Star-of-Bethlehem

(Hardy with protection)

**Polyanthus tuberosa*	Tuberose
**Richardia Elliottiana*	Yellow calla
Sternbergia lutea	Lily-of-the-field
**Tigridia pavonia*	Tiger flower
**Tropæolum speciosum*	Hardy nasturtium
**Vallota purpurea*	Scarborough lily
**Zephyranthes atamasco*	Atamasco lily
**Zephyranthes rosea*	Fairy lily

ROSES—Hybrid perpetuals, for June bloom; only stray blossoms later in season.

Baroness de Rothschild	pink
Frau Karl Druschki	white
General Jacqueminot	red
Mrs. John Laing	pink
Ulrich Brunner	red

ROSES—Hybrid teas, for bloom all summer and into autumn.

Arthur R. Goodwin	pale apricot

Bessie Brown	creamy white
Caroline Testout	pink
Grüss an Teplitz	red
Kaiserin Auguste Victoria	white
Killarney	pink
La Detroite	rose
La France	pale pink
Madame Abel Chatenay	carmine rose

OTHER BEDDING ROSES—For bloom all summer; hardy with slight protection.

Baby rambler, Jessie	cerise
Bengal, Agrippina	red
Bengal, Hermosa	pink
Polyantha, Jeanne d'Arc	white
Polyantha, Madame Turbat	pale pink
Polyantha, Mrs. W. H. Cutbush	pale pink
Tea-scented, Bon Silene	bright rose
Tea-scented, Francisca Kruger	coppery yellow
Tea-scented, Safrano	saffron yellow
Tea-scented, White Maman Cochet	white

ROSES—For bush effect in garden or border; unlike bedding roses, they are not pruned severely.

Austrian brier hyb., Austrian Copper	reddish copper
Austrian brier hyb., Austrian Yellow	deep yellow
Austrian brier hyb., Harison's Yellow	double yellow
Austrian brier hyb., Persian Yellow	double yellow
Austrian brier hyb., Rayon d'Or	double yellow
Austrian brier hyb., Soleil d'Or	double yellow
Damask, Cabbage	pink
Damask, Madame Plantier	white
Damask, White Provence	white
Moss, Blanche Moreau	white
Moss, Gloire des Mosses	blush
Rosa rubiginosa	
Sweet brier	pale pink
Lord Penzance (Penzance hybrid)	ecru
Meg Merrillies	crimson
Rosa rugosa	
Wrinkled rose	rose
Alba	white
Nova Zembla	double white
Single rose, Simplicity	white

CLIMBING ROSES—For pillars, arbors, screens and old trees.

Alberic Barbier	double pale cream
American Pillar	deep rose, white eye
Baltimore Belle	double blush
Carmine Pillar	single red
Dorothy Perkins	double pink
Dorothy Perkins	double white
Excelsa	improved crimson rambler
Gardenia	double cream
Garland	pale citron
Hiawatha	carmine, white eye
Lady Gay	double pink
Prairie	light rose
Prairie Queen	double deep rose
Tausendschœn	soft pink
Yellow Rambler	semi-double yellow

WEEPING ROSES—For use in overhanging effects.

Dorothy Perkins	both pink and white
Excelsa	improved crimson rambler
Lady Godiva	flesh pink
Rosa Wichuraiana	Single white

AQUATICS—Plants suitable for tubs of water set in the ground up to the rim, but better in small ponds.

Acorus japonica variegata	Variegated sweet flag
Aponogeton Distachyon	Cape pond weed

Calthra palustris	Marsh marigold
Nelumbium luteum	American lotus
Nelumbium speciosum	Egyptian lotus
Nuphar advena	Yellow pond lily
Nymphæa odorata Sulphurea	White water lily yellow
Nymphæa tuberosa rosea	Pink water lily
Peltandra virginica	Water arum
Pontederia cordata	Pickerel weed
Sagittaria japonica fl. pl.	Double arrowhead
Zizania aquatica	Wild rice

CHAPTER XIX

FLOWERS FOR SHADED GARDENS

EVER since gardens began the value of shade as a means of refreshment to man has been recognized, all manner of devices, from the natural to the sheer artificial, being employed to create it. Only in the failure to make the most of existing shade has there been a lamentable lack of recognition.

There is a feeling that flowers and shade will not go hand in hand. The feeling is so strong that when flowers are found growing in garden shade it is usually through neglect rather than intelligent intent.

Full sunshine and the open sky are essential to gardens only in a general way. Nature shows that. Many of her most beautiful gardens are partially shaded; not a few have a leafy screen between them and the sun the livelong day.

Shade, in some measure, is as grateful to numerous cultivated flowers as it is to man. Having had it naturally, they crave it in the garden—even though they are frequently good natured enough to live happily without it.

The deliberate planning of any scheme intended to make for shade should therefore not leave flowers out of complete consideration. No matter what the degree of shade, something there is that will find a particular spot congenial.

To make the point of complete consideration more clear, it is not enough to grow roses, wistaria or honeysuckle over a pergola or arbor, with perhaps a hardy border outside where there is a sunny exposure. So far as the flowers are concerned these are sun propositions. The important thing to learn is that other flowers may flourish in the created shady places—flowers that will utilize waste spaces and sometimes prove no more trouble than grass or weeds; for something must grow in them, be sure of that. Call the pergola or arbor such if you will; but let it be secondarily a shaded garden.

So, in a wider sense, with the whole place. If the garden proper be endowed with shade, necessarily or preferably, seize upon its shade advantages and develop them to the utmost. Or it may be that shade is upon one side of the garden, or the garden leads into shrubbery or thin woodland; then follow out the same idea. But do not overlook the lesser possibilities. Once a very pretty little shade garden not more than ten feet long and three feet wide was made along the stone foundation on the north side of the house. Though it had the sun only a little while in the morning, a couple of dozen kinds of native plants flourished there. No

possibility is too small; there are plenty of them under trees, between shrubs or in the shadow of hedges and buildings.

Thin woodland on the outskirts of the home grounds is the finest of all opportunities, for the reason that here there may be a liberal planting of appropriate flowers in a fashion approximating nature. In England there are woodland gardens of the rarest charm, but wholly unstudied appearance, and in them it is easier to find some of the choice American plants than at home. Here, fortunately, there is an awakening and in a few instances most praiseworthy efforts have been made to bring naturalistic shade gardens to a high degree of perfection.

The list of flowers that may be drawn upon for shaded gardens is far longer than is supposed. Few, for example, take into account the fact that it is made materially more numerous by a small host of spring flowers that may be said to flourish in the shade, though they bloom in full sunshine in precisely the same spot. This is a most important point to understand; many plants like to grow under deciduous trees and shrubs, where they may bloom in full sunshine before the foliage is out on the branches over their heads. The remainder of the season they are shade-loving, or at any rate shade-enduring.

Plant always in irregular colonies, even in a square foot or two of waste dooryard space, excepting in the rare instances when such a space as the

"If the garden proper be endowed with shade, necessarily or preferably, seize upon its shade advantages and develop them to the utmost"

inner line of a pergola, or parts of a formal garden, would seem to make conventionality desirable. Shaded gardens, as a rule, ought to be naturalistic.

For early spring, when branches are still leafless or nearly so, there is nothing more beautiful than several forms of the hardy primrose *(Primula)*. The loveliest is the English primrose *(P. vulgaris)* —which has been slow making its way here, considering the fact that it is one of England's commonest wildflowers and that with a proper degree of moisture and summer shade it is quite hardy here. The cowslip *(P. veris)*, the oxlip *(P. elatior)*, any yellow polyanthus *(P. polyantha)* and the Japanese primrose *(P. japonica)* are easier of culture and also are in every way desirable for massing on any scale. The pink *P. cortusoides Sieboldii* and *P. farinosa*, the lilac *P. denticulata*, the violet *P. capitata* and the (type) *P. auricula* are finely suited for shaded gardens but require more care.

Of the spring bulbs there are the snowdrop, Siberian squill, glory-of-the-snow, grape hyacinth, wood hyacinth, common hyacinth, crocus, tulip, crown imperial, daffodil and guinea-hen flower that may be planted where shade comes later. Any of them will grow in the thin grass under the trees of an old orchard and all are the better for a ground cover. This need not be grass and as a rule would better not be, though daffodils look particularly well in it. Snowdrops, for example, will come up through a carpet of periwinkle or bishop's weed, Siberian squill and lily-of-the-valley may be

used together for double-cropping shaded ground, tulips thrive among ferns and so on. Avoid all double forms and bizarre color notes in naturalistic planting. Red is not a spring color in the North; so beware of red tulips. The best tulips are the yellow species and the cottage white and yellow selfs; the best daffodils the yellow trumpet and the poet's narcissus.

Bloodroot *(Sanguinaria canadensis)*, which naturalizes well in rocky places, is excellent for early spring; so are Dutchman's breeches (*Dielytra cucullaria*) and Squirrel corn (*D. canadensis*). Then there are the foam flower (*Tiarella cordifolia*), heart-leaved saxifrage *(Saxifraga cordifolia)*, London pride *(S. umbrosa)*, blue bugle *(Ajuga genevensis)* white bugle *(A. reptans alba)*, liverwort *(Hepatica triloba)*, white stonecrop *(Sedum album)* and, later, the perennial forget-me-not *(Myosotis semperflorens)* for similarly carpeting the ground. The first three lose their foliage after blooming; so may be double-cropped with ferns and other plants.

For higher growth—a foot or so—in partial shade the wild sweet-william *(P. divaricata)*, sweet woodruff *(Asperula odorata)*, Greek valerian *(Polemonium reptans)*, common American columbine *(Aquilegia canadense)* and Pennsylvanian anemone (*A. pennsylvanica*) are admirable when spring is getting ready to merge into summer; closed gentian (*Gentiana Andrewsii*) in September and the evergreen Christmas rose *(Helleborus*

niger) and *Pachysandra terminalis* the year round.

The pink, white or yellow foxgloves, which are glorious on the edge of thin woods, for June; monkshood *(Aconitum napellus)* and cardinal flower *(Lobelia cardinalis)*, for late summer, and Japanese toad lily *(Tricyrtis hirta)* and Japanese anemone *(A. japonica)* for early autumn are fine for still higher growth.

Other plants that may be grown in more or less shade are three of the best day lilies, *Funkia subcordata, F. coerulea* and *F. Fortunei;* the big bleeding-heart *(Dielytra spectabilis)* and the little one (*D. formosa*), banebery (*Actaea spicata*), May apple *(Podophyllum peltatum)*, snakeroot *(Cimicifuga racemosa)* and false Solomon's seal *(Smilacina racemosa)*.

Good shrubs are all the native rhododendrons, laurels and azaleas, which do better with the protection; *Cornus florida* and the shad bush *(Amelanchier canadensis)*.

Last, but not least, the true lilies. Some of the best of them like partial shade and low growth covering the ground around them as well. Moreover these look better so placed than in any other way. Such lilies include *L. speciosum, L. superbum, L. longiflorum, L. auratum* and *L. tenuifolium*.

To return to the matter of double-cropping, see that shaded ground is covered in summer unless tree or shrub branches are so low as to do this. There are combinations for all places—even those where grass refuses to grow.

Chapter XX

THE JOY OF A FLOWER HOBBY

If you would add joy in the flower garden, make a hobby of some particular flower—or flowers. Here is the crowning touch that raises garden pleasure to the last degree of height. To the ordinary joy of the collector—any garden is a collection, pure and simple—it adds the joy that can come only through selection, as distinguished from mere aggregation.

The aim may be, but generally is not, the exclusion of all save the subject of specialization. The usual plan is likened fairly to the way of a man who collects books, but makes Burns his hobby; who collects paintings, but prides himself on the accumulation of Corots, or who collects postage stamps, but lays chief stress on United States issues. Certainly there is no need of exclusion; it is possible to have numerous friends and yet prefer one, or a few, above others.

A peculiarly happy note to this hobby is the fact that it is open virtually to all; rich and poor, in some way, may ride it to their heart's content. Probably none who has played the game with much

money has got more real enjoyment out of this sort of specializing than some Lancashire weaver with his auriculas—the pride of what little time he could call his own. He knows well enough that so far as the sheer pleasure of playing for "points" is concerned, his "bob" is quite as good a coin as his rich neighbor's "quid."

An American prototype of the Lancashire weaver, in spirit, is a hard-working young business man. He happens to have a special liking for China asters; so, while he grows other flowers, he makes a hobby of his favorite one. The result is a really absorbing outdoor interest from May all through the summer—a little while in the morning and a little while in the evening, on week days, he potters with his China asters and on Sundays he studies his crop at leisure. He would not miss the little money that he expends for seed, but, as a matter of fact, he comes out with a profit. Living as he does, in the suburbs of the city of moderate size in which he is employed, he is able to sell to a florist at a fair price all the cut blooms that he cares to bring to town on summer mornings.

China asters, of course, are a case of making a hobby of a single species—or, more strictly, a glorified species, the form as developed through cultivation being known botanically as *Callistephus hortensis*. It is a hobby that may be tolerably expensive if one cares to ride it to the limit. This is because there are so many strains, each with its several color divisions. The assortment offered in three

American catalogues would cost from six to ten dollars for the seed alone, while one English list—the prices run higher—totals above thirty dollars.

It would be a pleasant task to grow all strains in all colors, if only the fittest were intended to survive in the end. Completeness, however, is not everything to a collection of flowers; it might be subspecialized to great advantage, even going so far as to reject, say, all save a certain strain of China asters. A hobby that gives you the reputation of growing the finest Early Market, Ostrich Plume or late branching asters for miles around is certainly something. Just now the single China aster, which is an intentional reversion toward the original species (*Callistephus sinensis*), offers a fascinating subject for a restricted flower hobby. This new race has a grace that the double kinds lack and, both for bedding and cutting, the pink, mauve and white kinds are exceeding beautiful acquisitions. With the bold golden center, the crimson is at least a better mixer than the unfriendly double of the same shade.

The other extreme of flowers hobbies is concentration on a genus rather than on a single species. In many cases this, taken literally, might be the despair of even the largest botanical gardens, let alone the amateur; not only do numbers sometimes mount up appallingly, but a genus may be so distributed geographically as to render it next to impossible to keep a complete representation flourishing in a given group of outdoor and indoor gardens. For-

tunately it does not have to be taken literally—least of all by those to whom the growing of flowers is more a matter of recreation than of botany. Make your interpretation liberal, not literal, and just as liberal as you choose; it is your hobby, no one's else.

Look over the principal genera that have come into garden cultivation and then decide on the one that most appeals to you. Maybe that very one already is represented by a species or two. If it is not, make a start with one or more of the easiest species—which you may be sure are those most commonly catalogued—and then add others from time to time. Study, the while, this genus from the botanical point of view; see what Bailey's Cyclopædia of Horticulture has to say, for one thing. The more you study the more you will become absorbed, and it will not be unusual if your desires show a disposition to get way ahead of your time and money conveniences. But do not let them; you can ride your hobby slowly and sanely and have just as good a time.

Perhaps it is the lily genus that is decided upon. This would be a fortunate decision indeed; for American gardens are so badly in need of more lilies that every one who makes a hobby of them is a benefactor to this and future generations. You find the genus catalogued as Lilium, the particular species being indicated by a second Latin word; thus the botanical name of the tiger lily is *Lilium tigrinum*.

Make a start with some of the easy species, such

as *L. tigrinum, L. croceum* and *L. speciosum.* At the same time that you are learning to grow these to perfection, familiarize yourself with the way that lilies separate themselves into groups, largely according to the form of the blossom, and get a clear understanding of the reasons why some lilies are more difficult in culture than others, and to what extent such difficulties can be overcome. There are eighty or more species of lilies in culture, but with a little research—that will be a great pleasure—it will not be troublesome to separate them into zones of difficulty, through which you may care to venture farther and farther as the years go by. Very likely it will not be many years before you find yourself trying to persuade those lovely, but tender, pink lilies, *L. japonicum* and *L. rubellum,* to stay with you by guaranteeing special attention to their wants in the way of food and winter bedclothing.

The iris offers just as fascinating a field as the lily, with the advantage of being a less expensive hobby within the zone of easy culture. "The poor man's orchid" has the further advantage of a materially greater variation of species. One could easily make a hobby of the German, the Japanese, the Spanish or the English iris, so many are the varieties of each. No less than fifty-six named varieties of Japanese iris are in a single American list. Another offers forty-two German irises, while in a British list are thirty-five Spanish irises and thirty-two of the English—and all these are only selections from larger nursery collections.

Of the easiest irises there are a dozen or more species; and as these bloom in April, May, June and July, the hobby opportunities are enough to bring contentment without going in for those that require coddling. The latter are a small army. There are more than thirty bulbous and tuberous-rooted species that are hardy in England where they bloom from November to June, and fifteen of the cushion irises, mostly from Palestine. Some of these, *I. reticulata, I. pavonia, I. alata* and *I. susiana,* have been wintered outdoors in this country and there are others that would survive with the protection that they get abroad. The truth is that more plants would prove hardy in American gardens if they were given the care that they have in England. There the gardeners not only take all pains to place tender plants in sheltered spots and to give them winter protection to suit their individual needs, but small glass frames—hand ones—are used freely in winter and spring and also to enable bulbs and tubers to secure their required "dry season" after blooming.

The rose genus is a fascinating field for a flower hobby along lines that have seldom been tried by the amateur. There are a great many species, both bush and climbing; and if the space is available, a fair representation of these will make a collection of practically assured permanence. Anyone who takes up species in this way will find their beauty a revelation and will not wonder that single roses stand so high in culture today. Or a species may be

taken up with some of its variations; perhaps the sweet brier *(Rosa rubiginosa)* and Lord Penzance's famous hybrids, of which there are at least fifteen. In time add the other briers, notably the Austrian; there are some wonderful yellow and coppery tones.

Going in for double bedding roses as a hobby means, of course, concentrating on one of a few classes and then selecting from a bewildering array of names. The hybrid tea, now the chief bedding rose, has two hundred and fifty varieties in one catalogue and a third as many hybrid perpetuals, neither list being more than the especially desirable varieties. In the same catalogue the dwarf polyantha roses number about thirty and the *Rosa rugosa* variations fourteen. A combination of carefully selected hybrid teas and the best of the climbing roses would be an excellent one.

One amateur divides his hobby interest very agreeably by concentrating on the hardy primrose *(Primula)* for spring and the hardy chrysanthemum for autumn. He rather envies a Scotch physician who grows more than one hundred and twenty-five primulas, with any number of varieties, and a friend nearer home whose named chrysanthemums are above two score. But this amateur wisely limits himself for the present to about a dozen of the hardiest primula species and less than twenty varieties of chrysanthemums. When he has the time to take proper care of more he will possess them, not before. The primulas are among the most charming of subjects for a flower hobby.

"The primulas are among the most charming subjects for a flower hobby"

Mayo

Another very charming subject is the bellflower (*Campanula*). There is an endless number of bellflowers, but not all are of interest unless one is collecting for numbers. A dozen or so perennial species, with the biennial Canterbury bell and the annual *Campanula Loreyi*, are distinctly worth while. Others are the phlox, with its species blooming over a period of six months; the pink (*Dianthus*), which has a long season also and some beautiful dwarf species that the garden seldom sees; the violet (*Viola*), which has some fine foreign species other than the ones that are the forebears of the pansy and tufted pansy and several native ones that deserve more garden culture; the speedwell (*Veronica*), with profuse bloom over a long season; the morning-glory (*Ipomœa*), which has several fine species; the peony (*Paeonia*), both tree and herbaceous; the columbine (*Aquilegia*), the poppy (*Papaver*), the stonecrop (*Sedum*), the saxifrage (*Saxifraga*) and the windflower (*Anemone*).

Among the bulbs and tubers there are more temptations to stroll down pleasant paths. The dahlia, in its well-defined classes, and the gladiolus, in the species and the choicest representatives of their hybrids, rank with the best flowers for hobbies because of their quality possibilities. The tulip genus (*Tulipa*) and the daffodil (*Narcissus*), by either species or classes; the crocus, the fritillary (*Fritillaria*), the butterfly, globe and star tulips (*Calochortus*) and the dogtooth violet (*Erythronium*)

are extremely interesting, though the task will be found a very difficult one in the northeastern part of the United States excepting in the first two instances.

Shrubs, too, are hobby subjects. The lilac (*Syringa*), of which there are several species and a great many varieties, is one of the best of them. The rhododendron and azalea are quite as good in their showier way. Permanence of investment considered, none of these can be called an extravagant hobby. The viburnum forms an interesting group of considerable size; so do the barberry *(Berberis)*, the dogwood *(Cornus)*, the hawthorn *Cratægus)*, the St. John's wort *(Hypericum)*, the honeysuckle (*Lonicera*), the mock orange (*Philadelphus*), the bramble (*Rubus*), the spirea, the elder (*Sambucus*), the sumac (*Rhus*) and the currant (*Ribes*).

A few of the annuals are to be had in various species, though this point is generally overlooked by the grower of flowers. Half a dozen species of annual chrysanthemum are on the market and as many of candytuft *(Iberis)* and centaurea. The great annual for specializing is the sweet pea. Too many think the sweet pea (*Lathyrus*) easy. Indifferent blooms, it is true, are not very hard to bring into the garden; but immense ones of marvelous form and growing on plants exceeding eight feet in height are only to be had as the result of cultural skill. Any one who grows even a dozen of the best named varieties of a choice strain will find that he

has no small hobby on his hands. This dozen can be chosen from a list of one hundred and sixty-five varieties; doubtless from longer lists also.

Aside from Bailey's monumental work, there are many books of reference that can be used as the means of education in the pursuit of a flower hobby. The rose, iris, daffodil, lily and crocus have all had books written about their species and hybrids. Catalogues, too, frequently are of incomplete botanical assistance, but now and then there is needless confusion of name. It must be borne in mind also that common names are not always to be relied upon for establishing the genus of a plant. Thus the Christmas rose belongs to the genus *Helleborus*, not *Rosa;* the Guernsey lily to *Nerine*, not *Lilium;* the grape hyacinth to *Muscari*, and so on. If your hobby is roses, however, and you think that you would like Christmas roses with others, just let them come in and say nothing; botany can be dreadfully elastic in the gardens, sometimes.

Whether the hobby serves any marked decorative purpose is of minor importance. The prime object is the production of perfect individuals and very often it is much more convenient to put the plants in rows in a secluded part of the grounds, using, perhaps, the surplus for special display elsewhere. In such a place the raggedness incidental to seed-saving does not matter and there is plenty of room for experimenting with cuttings and seedlings, as well as hybridizing—if one has the time for that.

CHAPTER XXI

KNOWING THE FLOWERS BY NAME

EVERY little while you hear this remark: "I never can remember the names of flowers." Change "can" to "do" and it would be nearer to the truth. Many do not remember the names of flowers, that is lamentably apparent; but anyone can remember them, if sufficiently interested. It is only a question of training the mind, consciously or unconsciously.

The memory will be helped a great deal if the striking similarity of the rules of naming flowers and civilized human beings is grasped clearly. In the botanical world the natural orders are divided into genera. Each genus or family has a name, which corresponds exactly to the surname of a man or woman. But the generic name always comes first, a plan which has much in its favor. A genus, in turn, is divided into species. This necessitates a christian name, so to speak; in botany it is called specific. Usually there is only one specific name; but, as with the human race, there may be another that is still more specific. Thus, to make the correspondence clearer:

ORDER	GENUS	SPECIES
Cruciferæ	*Iberis*	*Gibraltarica*
American	Jones	Hezekiah

Latin is used for orders, genera and species, for the reason that it is the universal language of science. The order and specific names are translatable into any language; the generic name not always, as in the case of wistaria, which is coined from Wistar. In the instance just mentioned the plant is Gibraltar candytuft and it belongs to the order of cross-bearers. Candytuft is doubtless a corruption of Candia tuft, as the first species cultivated *(I. umbellata)* was discovered on that island. Gibraltar implies habitat, but not a geographical restriction of range. Cross-bearers are so called because the four petals of the blossoms of plants in this order form a cross.

As plants come into cultivation, frequently in the wild, they generally acquire a common name, which may be a literal translation or something suggested by a fancied resemblance or a mere notion. Literally *Viola tricolor* would be the tri-colored violet, but that is not its customary name; in Europe and in this country the plant has numerous popular names. So the correspondence may be carried still farther by the statement that flowers, as well as human beings, frequently have nicknames—sometimes strikingly appropriate and again quite unfathomable as to the reason therefor.

If only the correspondence had stopped right there! But flower names change; by force, not

volition. Someone says to *Bignonia radicans,* "Here, you; from this time on your name will be *Tecoma radicans* and don't mind what So-and-So says to the contrary. Understand?" Or to *Geum coccineum,* "A mistake was made at your christening, it seems. You are not *G. coccineum* but *G. chiloense.*" So in looking over the pages of the floral directory you occasionally have reason to wish that well enough had been let alone. Fortunately the confusion is only here and there.

The common names are most important to remember, provided that they are either the best possible rendering into the vernacular or, if fancifully descriptive, are sufficiently distinctive. Dog rose *(Rosa canina),* in the one class, and Chinese lantern plant (*Physalis Francheti*), in the other, are sufficiently definite. London pride is not, nor is bluebell; the former is *Saxifraga umbrosa* in England and *Lychnis chalcedonica* here, while the latter is applied to more than one plant on each side of the Atlantic. Jerusalem cross is really a much better common name for the lychnis, as each blossom suggests the red cross of the Crusader.

It is well to inquire into the reason for every common name. The result is generally to create in the mind an association between the name and the plant. Moreover the inquiry leads one into a very pleasant field of folklore study, as well as greater intimacy with the garden. Look at a blossom of any aconitum on the plant and it is apparent from the shape of it why it is called monkshood and hel-

"Look at the blossom of any aconitum on the plant and it is apparent from the shape of it why it is called monkshood and helmet flower"

Not for loan

met flower. Pluck it, when fully open, and hold it with the back of the helmet down and it will be no less apparent that the little boys and girls of seventy years ago did not overstrain their imagination when they spoke of it as Pharaoh's chariot. It is just as well to know all these names; also that the best is aconite, because it is an English rendering of the generic name, aconitum.

Learn all the common names that you can, for the pleasurable side of it, but hold to the best for ordinary use. Choose white rock cress *(Arabis albida)*, for example, in preference to welcome-home-husband-be-he-never-so-drunk and prince's feather *(Polygonum orientale)* to kiss-me-over-the-garden-gate. Not that these names are so foolish as they might seem at first glance. The arabis—also one of the stonecrops *(Sedum album)*, which appears to have been given the same name—has a mass of white blossoms well calculated to enable a man to locate his doorstep at night, and as for the knotweed, it hangs its deep rose plumes over a gate in a most inviting way.

Having associated the common name with the plant, try to associate the botanical name with both. Use the dictionary, as well as botanical works, for reference. Such things as finding out that true bell-flowers have the generic name of *Campanula* (little bell), that a windflower is *Anemone* (from the Greek word for wind), that the pink is *Dianthus* (Greek for Jove's flower), that any spring primrose is *Primula* (from the Latin for first), that the

finger-shaped blossoms of foxglove are the digit of *Digitalis,* and so on, help the memory. Adding specific names you get, *Campanula persicifolia* (peach-leaved bellflower) *Anemone pennsylvanica* (Pennsylvanian anemone), *Dianthus neglectus* (neglected pink), *Primula vulgaris* (common primrose) and *Digitalis purpurea* (purple foxglove).

Pair off the various worts with the respective generic names and note the close relationship in some cases—such as *Saponaria* (soapwort), *Plumbago* (leadwort) and *Pulmonaria* (lungwort). Woundwort *(Stachys)* has reference to the use of the woolly leaves to stop the flow of blood. Some of the other worts are more difficult; so are the banes—wolf's *(Aconitum),* leopard's *(Doronicum)* and flea *(Erigeron* or *Inula).*

Labels are always a good aid to the memory, but should be relied upon less and less for species. For varieties they will always be necessary to a certain degree, as it would be foolish, even if possible, to burden the mind beyond a reasonable limit in that direction. Keep all labels out of sight wherever the planting is decorative; if there is a reserve garden use such tags on the memory there, so far as this can be done.

Chapter XXII

BIRDS AND THE FLOWER GARDEN

More birds would frequent the flower garden if there were fewer cats and dogs roaming around. These much too numerous domesticated animals, because it is their nature, and children, because they are innocently unthoughtful, frighten away—if they do not kill—some of the birds that would be only too glad to call from time to time, and perhaps settle down for the summer.

For one, there is that most sociable of spring's harbingers—the song sparrow. He will come in February to stay until November, if you do not let him be frightened away. And he will sing the while, day after day, as if his very soul were in the doing of it for you. But you must give him a bit of nearby thicket wherein to let him hide a nest—or imagine that he is hiding it. Then he and his mate and their little ones will run around the garden and feel quite at home in every part of it. The catbird, who is a fine singer when he takes the notion, may also be persuaded to nest close by the garden if there is a higher thicket; he likes housekeeping in a bush of the common barberry.

Different birds require different kinds of encouragement. The black-winged yellow bird, or American goldfinch, is sure to come in summer if there are cornflowers going to seed. So long as the seeds are good pickings, count on his company. And among the blue blossoms he is one of the prettiest of garden sights. Always have some cornflowers for the goldfinches. Later the juncoes and chickadees will be frequent visitors if you have been considerate enough to plant a few sunflowers for them. The big Russian sunflower is best and with careful arrangement is not inimical to beauty in a garden picture. Have enough of them somewhere on the place to attract the birds until late autumn.

In the spring the male purple grackle, with the lustre fresh on his plumage, is a beautiful figure in the garden. The grackles and starlings walk leisurely over the beds and borders and the robins hop about—all in search of earth food, and not over-timid. The chipping sparrow, whose nest may be in the clematis vine that shades the piazza, and the yellowhammer are likewise neighborly; the rose-breasted grosbeak and great-crested flycatcher drop in occasionally; the bluebird, warbling vireo, kingbird, bluejay, downy woodpecker and Baltimore oriole spend much time in the trees overhead; the ruby-throated humming bird buzzes around the flowers day in and day out, resting at long intervals on a branch, and it may be that the screech owl, looking for his prey, is in the garden of a night.

The starling is very fond of the fruit of the com-

"Water is always a great attraction to the birds; they like to drink it and they like to bathe in it"

mon elder, which makes a handsome shrub, and the robin of the Russian mulberry and wild cherry. The mulberry and cherry are trees, but not too large to be worked into a garden scheme. These three fruits ought to be on every place for the birds —not only to encourage them to stay around and feed on insects but to keep their minds off choicer fruit. South of Washington the china tree (*Melia azederach*) is a fine attraction for the birds. In the North the mountain ash, red cedar and dogwood are sure to keep robins and other birds around late in the year.

Always the English sparrow stays by the garden; he does some good there and no particular harm. He is pugnacious, but is less responsible for keeping other birds away than are the presence of disturbing cats, dogs and the absence of attractive food and shelter. If food be placed in the garden in winter the junco, chickadee, blue jay, tree sparrow, fox sparrow, song sparrow and starling will all share the spread with the English sparrow; the downy woodpecker also, when the table is a piece of board fastened to a tree. For the birds in winter tie a piece of suet on a tree or shrub, out of the reach of cats, from time to time and throw on the garden walk or on an elevated bird table, bread-crumbs and mixed bird-seed.

Water is always a great attraction to the birds; they like to drink it and they like to bathe in it. Running water is best, but a still bird basin will do if properly cared for. Fill it every night and place

it where there is shade. The water must either be very shallow or be made so in places by the use of stones; garden birds bathe, they do not swim.

Hedges, especially untrimmed ones, and all shrubbery in the form of thickets appeal strongly to birds. To them birds can run or fly to cover, they are good for nesting and roosting purposes and the ground beneath is just the place for scratching. Wherever circumstances permit, it is an excellent plan to create thickets as bird coverts; the company of the songsters, let alone the destruction of insect pests, will pay for the trouble over and over again.

What birds are willing to do, even without the allurement of water, is easily proven by what they did in one instance. Either within a few feet of the garden or in a tree just above it the starling, purple grackle, song sparrow, English sparrow, chipping sparrow, robin, bluebird, English grosbeak, yellow hammer and screech owl have all nested at one time or another in a space of less than six years. Adding the mere callers, the bird guests have exceeded thirty—and this where conditions are suburban rather than rural.

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